CTC Quarterly Bulletin

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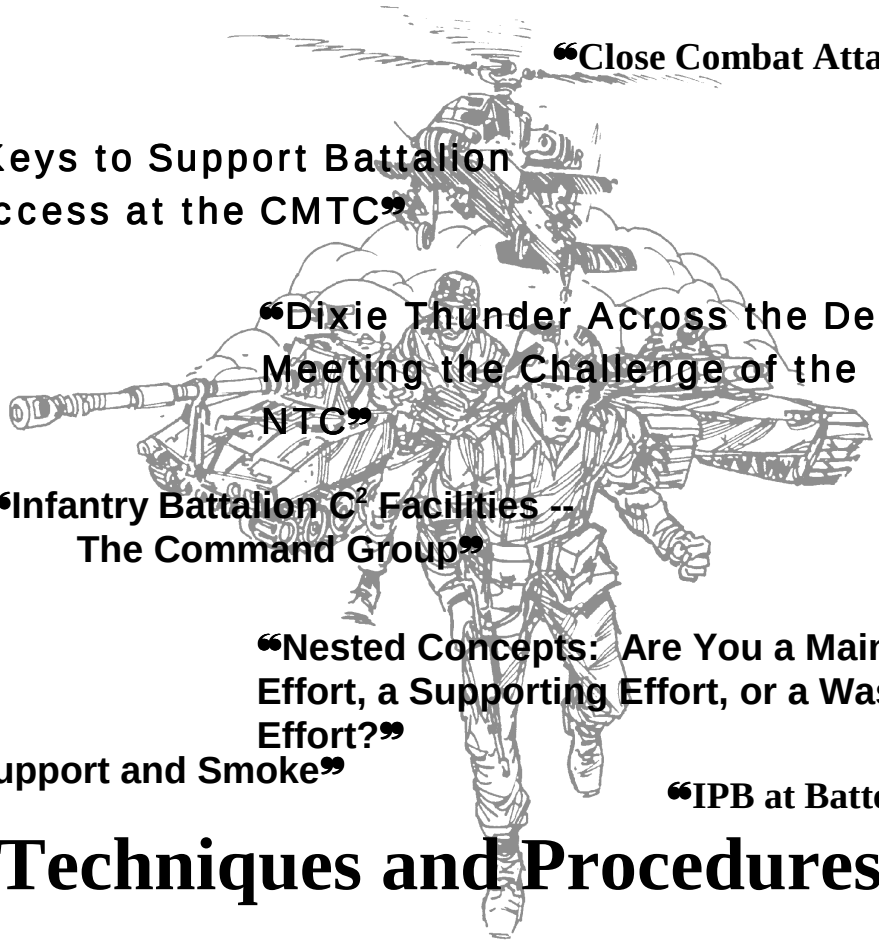

"Close Combat Attack (CCA)"

"Eight Keys to Support Battalion Success at the CMTC"

"Dixie Thunder Across the Desert: Meeting the Challenge of the NTC"

"Infantry Battalion C^2 Facilities -- The Command Group"

"Nested Concepts: Are You a Main Effort, a Supporting Effort, or a Wasted Effort?"

"Fire Support and Smoke"

"IPB at Battery Level"

Techniques and Procedures

CENTER FOR ARMY LESSONS LEARNED (CALL)
U. S. ARMY TRAINING AND DOCTRINE COMMAND (TRADOC)
FORT LEAVENWORTH, KS 66027-1327

FOREWORD

This CTC Quarterly Bulletin focuses on Techniques and Procedures your unit can use, so you have the best chance to "do it right the first time." If the lessons in this bulletin and subsequent CTC Quarterly Bulletins help you avoid making a mistake, then the lessons learned process is working well.

The relevant lessons for the Total Army are there in the field with you. CALL has the mission and the means to share those lessons with the rest of the U. S. Army. This bulletin is one way to do that.

If you or your unit have a "lesson" that could help other units do it right the first time, send it to us. Don't worry about how polished your "article" is. CALL can take care of the editing, format and layout. We just want the raw material that can be packaged, and then shared with everyone.

So take the time to put your good ideas on paper and then get them to CALL. We'll acknowledge receipt and then work with you to put your material in publishable form. It may show up in ***News From the Front!,*** a bimonthly publication, or in the ***CTC Quarterly Bulletin.*** Select material will also be put "on line" in ***Training Techniques,*** a new publication on the CALL Home Page.

You can **fax** your material to **DSN 552-9583/Coml (913) 684-9583, ATTN: Mr. Rick Bogdan, Military Analyst.**

Combat Training Center (CTC) *"HOW TO"* Video Tapes

CALL is distributing CTC-produced "How To" tapes at no cost. These are standard VHS video cassettes. As subsequent tapes are released by the CTCs, CALL will distribute them. You can order these tapes as you would any CALL publication, *BUT* the videos will be issued on a unit, not individual, basis. As with any product CALL produces, we highly encourage local reproduction of these tapes. The video tapes are also available for viewing on the CALL Website (http://call.army.mil).

Is Your Unit Looking for Operations Orders to Facilitate Practicing the MDMP? Well, *Look No Further!*

Recent trends from JRTC, NTC, and CMTC reveal that units typically experience problems with the Military Decision-Making Process (MDMP). Brigades often do not have the opportunity to exercise their staff planning process as often as necessary while at home station. CALL has received permission from NTC and JRTC to disseminate, upon request, Division-level operation orders. The orders are designed to be used by a Brigade Headquarters to train a portion of, or the entire, MDMP. They can also be used to facilitate unit CPXs, simulation exercises, or OPDs.

Combat Training Center (CTC)
Quarterly Bulletin
2QFY00

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The intent of CALL publications is to share knowledge, support discussion and impart lessons and information in an expeditious manner. This CALL publication is not a doctrinal product. The tactics, techniques and procedures (TTP) observed and reported in this publication are written by soldiers for soldiers. If you have, or your unit has, identified other relevant TTP for the U.S. Army, contact the Managing Editor, Mr. Rick Bogdan, at Coml (913) 684-9581or DSN 552-9581; FAX DSN 552-9583; e-mail: <bogdanr@leavenworth.army.mil>. Articles must be submitted in either Word Perfect or Word format. Graphs, slides and clipart must be submitted separately from the document in either ppt, pcx or wpg format.

The Secretary of the Army has determined that the publication of this periodical is necessary in the transaction of the public business as required by law of the Department. Use of funds for printing this publication has been approved by Commander, U. S. Army Training and Doctrine Command, 1985, IAW AR 25-30.

Unless otherwise stated, whenever the masculine or feminine gender is used, both are intended.

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CLOSE COMBAT ATTACK (CCA)

by LTC Tony Crutchfield, CPT William T. Golden IV, and CPT Thomas Throne Jr.,
1st Battalion, 2d Aviation Brigade, 2d Infantry Division

FRIDAY, 2100, ABF 22: During the air mission brief, it all seemed so clear to me. My team was to occupy an attack-by-fire (ABF) position in support of a battalion air assault. Our task was to destroy all enemy forces near the landing zone (LZ) that could prevent a successful landing or prevent the Infantry Task Force (TF) from moving to its objective. As I watched the formation of UH-60s approach, my heart began to race. I knew that lives depended on my ability to find and destroy the enemy. The Blackhawks touched down in a cloud of dust as 100 or more soldiers dismounted, ready for battle. Radios crackled as commanders begin shouting out orders. The Hawks lifted off at once as if part of a synchronized ballet. I increased my scan of the tree line. I wanted to be ready for a call from the infantrymen on the ground. Then it came. "Apache 23, this is Avenger 06, contact Maverick 06 on this frequency for a CCA, over." I was ready. I moved my tactical acquisition data system (TADS) to the grid Maverick 06 gave me and saw nothing. Soon, another call from the warriors on the ground. "I need suppressive fires now! All my soldiers are marked with bud lights." What is he talking about? What is a bud light and can I see it under the forward looking infrared (FLIR)? I think I see troops on the ground in front of me. Are they friendly or enemy? What do I do?

CCA can be defined as attack helicopter maneuver/fires in direct support of a ground force which is in anticipated or direct contact with the enemy. The 2d Infantry Division (2ID) fights in brigade combat teams (BCTs) and typically operationally controls one AH-64 company to each brigade. To facilitate CCA operations in Korea's restrictive terrain, the attack companies organize into teams of two using the "lead-wingman" concept. For planning purposes, there are usually three teams planned for each mission. CCA in the 2 ID is conducted using two methods: 1) CCA with a light task force (TF) that has been air-assaulted into an area of operation and given the mission to protect another brigade's (main effort) attack. For this scenario, aircraft station time is critical. The teams of AH-64s are typically phased into the fight to allow continuous coverage of the air assault force with two teams on station during the actual air assault phase. Auxiliary fuel tanks are employed on the lead team to provide maximum station time. This ensures continuity and maximum combat power forward during the early stages of the air assault when CCA is most likely and the ground commander is building his combat power. 2) CCA in support of a mechanized/armor TF in the offense or defense. In this scenario, the AH-64 company can be used as part of the main or supporting effort. These tactics, techniques, and procedures (TTP) allow the AH-64 Company and the armor TF to simultaneously destroy the enemy force in the same engagement area (EA) or in separate armor/ aviation EAs.

The key to successful aerial and ground maneuver relies on detailed planning, standing operating procedures (SOPs), and training. For a light TF air assault/CCA mission, a 96-hour planning cycle is used. A warning order should be issued as soon as possible by the air assault task force headquarters. This allows the attack commander to develop his task organization that best supports the mission. The first coordination/planning event is the initial planning conference (IPC). This is the first meeting between the ground maneuver unit and the aviation task force. The IPC takes place when the air assault task force commander (AATFC) has a general idea of his intent and

ground tactical plan scheme of maneuver. During the IPC, each unit involved in the air assault back-briefs task and purpose, general scheme of maneuver, and task organization. This crucial meeting synchronizes all battlefield operating systems (BOSs), thereby ensuring that the AATFC's intent is met. Next is the air mission brief (AMB). It is held 72 hours out and is the initial Go/No Go brief to the AATFC. Additionally, it is the final coordination meeting for air and ground maneuver units. Each unit briefs its task and purpose, refined scheme of maneuver, and detailed task organization. At H-26+00, the initial conditions check is conducted on the pickup zone (PZ). Each BOS is reviewed to determine if the conditions are set to conduct the Air Assault. A Go/No Go decision is made. At H-24+00, reconnaissance insertions are conducted if the decision is a Go. At H-2+00 hours, the final conditions check is made. The reconnaissance force must have met the AATFC's priority information requirements (PIRs) at the final condition check. If the PIR is met and the AATFC gives the "green light," the first AH-64 team will set the conditions on the LZ by searching for and destroying enemy forces affecting the LZ. This is when detailed SOPs are most important and are put to the test.

SOPs are an important part in synchronizing aerial and ground maneuver. Three key reports form the foundation of 2ID SOPs for conducting air assault/ CCA. They are the CCA fragmentary order (FRAGO), the attack inbound summary, and the target handover. The CCA FRAGO is especially critical if the planning process was hasty. The CCA FRAGO is issued to the attack company commander when he is inbound to the LZ by the AATFC. It should contain all the information needed to complete the mission and should paint a clear picture of the current friendly and enemy situation, assign a clear task and purpose, and communicate the identification, friend or foe (IFF) signals utilized. It can be issued as "no change" or contain any changes that occurred since the final conditions check. The CCA FRAGO includes:

1. Situation.
   a. Enemy.
   b. Friendly.
2. Mission.
   a. Task.
   b. Purpose.
3. Coordinating Instructions.
   a. Friendly location.
   b. Friendly marking.
   c. Enemy location.
   d. Enemy marking (how friendly units will mark the enemy).
   e. CCA Hopset for confirmation/commands.

The CCA FRAGO gives the first AH-64 team on station great situational awareness as well as last-minute changes to the mission.

The next report is the attack inbound summary. It is transmitted by the aircraft team leader and includes:

1. (INF CO CDR) This is (AH-64 Team).
2. Number of aircraft in the team.
3. Ammunition on aircraft.
4. Optical capability.
5. Station time.

The attack inbound summary is used any time a new team of AH-64s arrive on station. It gives the ground commander information on the new team's restrictions or limitations. It is especially useful when conducting CCA if the new team arrives with a different task organization, ammunition configuration, station time or optical capability than was previously briefed. These two reports set the stage for successful air and ground coordination. Both the air and ground maneuver unit must have a clear understanding of the situation, capabilities and scheme of maneuver.

The final report is the target handover request. It was developed after executing several air assault/CCA exercises in the ID, and has proven to be very effective if communicated clearly and concisely. It includes:

INF CO CDR

1. (AH-64) This is (INF CO CDR).
2. My location is _____. Visual recognition signal is _____.
3. Target description.
4. Target location.
   - From my location, target is ____ degrees, ____meters.
   - Grid of target.
   - Reference a known point (major terrain feature) to give location of target.
5. Marking target with (type of signal depending on conditions).
6. Ready to mark target at your command, over.

AH-64 TM LDR

1. (INF CO CDR) This is (AH-64).
2. Observer location is _____. Visual recognition is _____.
3. Verify target is _____ located at _____.
4. MANEUVERING TO ENGAGE.
5. (INF CO CDR) This is AH-64, give friendly recognition signal.
6. AH-64 confirms friendly recognition signal or continues to maneuver to confirm friendly location.
7. Observer, this is AH-64, target located grid _____.
8. Mark target with _____.
9. Target will be engaged with _____(30mm/ Rockets/Hellfire).
10. BDA follows_____(pilot gives BDA to ground unit).

The target handover request is crucial in the prevention of fratricide and destruction of the enemy. The target handover request allows the ground maneuver forces to communicate to the AH-64 team the exact location of friendly and enemy forces. Marking techniques are like any other technique; use what works. MRE heaters, infrared chemlights, body posture, infrared strobes will work well depending on terrain, foliage, and relative locations of the AH-64 teams to the ground forces.

The final key to success is training between aerial and ground maneuver units. Conducted regularly, it gives our ground warriors a better understanding of the capabilities and limitations of the AH-64 battalion. Although helicopters operate in the third dimension, they are restricted by terrain. Unlike fixed-wing jet aircraft, attack helicopters have neither the speed nor the altitude that will reduce exposure to enemy air defense weapons. Units must use the terrain to conceal their movement. Just as it takes time for a tank, Bradley, or infantryman to plan their next move, it takes time for an AH-64 team/platoon to plan its maneuver to engage a target. Attack helicopters are

also constrained by lines of intervisibility and proper concealment to ensure survivability. This important aspect of employment of the AH-64 must be understood and recognized by all units on the ground.

Additionally, whether AH-64s are used in the light or mechanized/armor CCA role, success depends on a clear task and purpose from the ground task force commander. Task and purpose define how the tactical commander wants to use a maneuver force to accomplish his intent. All subordinate units need a clear task and purpose to be successful. A task is defined as the result or effect the commander wishes to achieve. Tasks need to be clearly understood and feasible. Too often, tasks are given to the AH-64 teams that cannot be completed because of aircraft limitations or lack of definition. It is the job of the AH-64 commander to educate ground tactical commanders on the capabilities and limitations of his crews and the airframe. This ensures that appropriate tasks are given to the Apache teams on the battlefield. The commander must look at his unit's ability to perform numerous tasks during CCA missions as well. Too many tasks can lead to forces being spread too thin across the battlefield and an inability to mass fires in accordance with attack helicopter doctrine. Purpose is also important. It gives the attack commander the flexibility to use initiative to meet the commander's intent if things are not going as planned on the battlefield. Overall, a clear task and purpose results in well-defined objectives and increased probability of mission accomplishment.

Finally, CCA is a difficult mission to perform without prior coordination, detailed planning and training. In the 2ID where the immediate threat exists for combat, it is extremely important that the ground and air maneuver units conduct frequent training to guarantee success. If detailed planning is not possible, units should revert to lessons learned during past training opportunities and SOPs developed as a result. The development of new ways to mark targets, such as air commander pointers and day visual lasers, will further reduce the difficulties of integrating air and ground assets. The establishment of a habitual relationship between air and ground units and frequent training is critical. It is this synergy that has made CCA an effective and lethal method of delivering destructive fires against any enemy on the Korean Peninsula.✪

Dixie Thunder Across the Desert: Meeting the Challenge of the NTC

by Colonel John Baggott, Commander, 3d Brigade, 87th Division (Training Support), and LTC Chris L. Cottrell, SRAAG, State of Mississippi

A rotation to the NTC is never easy. A lengthy train-up. Synchronizing logistics with complex operations. Preparing, loading, moving, and unloading volumes of equipment and supplies. And once you're there, you get to face the ***World Class OPFOR.*** Now add to these challenges the complications of a National Guard-Enhanced Brigade; finite training opportunities, limited organic logistics, equipment and units from a variety of locations spread across a wide geographic area. This is what faced the 155th Separate Armored Brigade, "Dixie Thunder," a National Guard-Enhanced Brigade from Mississippi as they readied for their rotation in the summer of 1999. This article describes Dixie Thunder's train-up and execution, and the role and support of their Training Support Brigade (TSB).

Each of the 15 National Guard-Enhanced Brigades, commonly referred to as E-Brigades, must deploy to a dirt CTC once every eight years. In addition to the Brigade Combat Team, these rotations compel support by numerous CS and CSS units not normally associated with the E-Brigade. These supporters execute the missions of getting vehicles and equipment from multiple home stations (eight states and the Commonwealth of Puerto Rico in Dixie Thunder's rotation) to Yermo, CA, to the Dust Bowl at the NTC and eventually back to each home station.

TASK ORGANIZATION

Unlike Active Duty units, E-Brigades lack the organic support required to deploy and redeploy. Often, the dozens of units required for these tasks are not available anywhere in their home state. Additionally, the length of the operation exceeds the number of Annual Training days available for participating RC soldiers. This dictates different RC units for deployment and redeployment.

To meet these challenges, the Adjutant General of the State of Mississippi organized two Task Forces (Figure 1) and divided the rotation into three distinct phases: inbound, RSO&I and combat operations, and outbound. These phases were more than just a logical breakdown of the mission, they also allowed the States providing units to meet the normal 15-day annual training periods for the inbound and outbound phases and 21 days for the RSO&I and combat operations phase.

The Dixie Thunder, commanded by the155th Separate Armored Brigade Commander, centered on the RSO&I and combat operations phase. The Magnolia Thunder Task Force (MTTF), led by the Chief of Staff for the State of Mississippi, consisted of the State of Mississippi National Guard staff, the Area Support Group (MSARNG) and the Combat Support Battalion (MSARNG). The MTTF focused on the inbound and outbound phases.

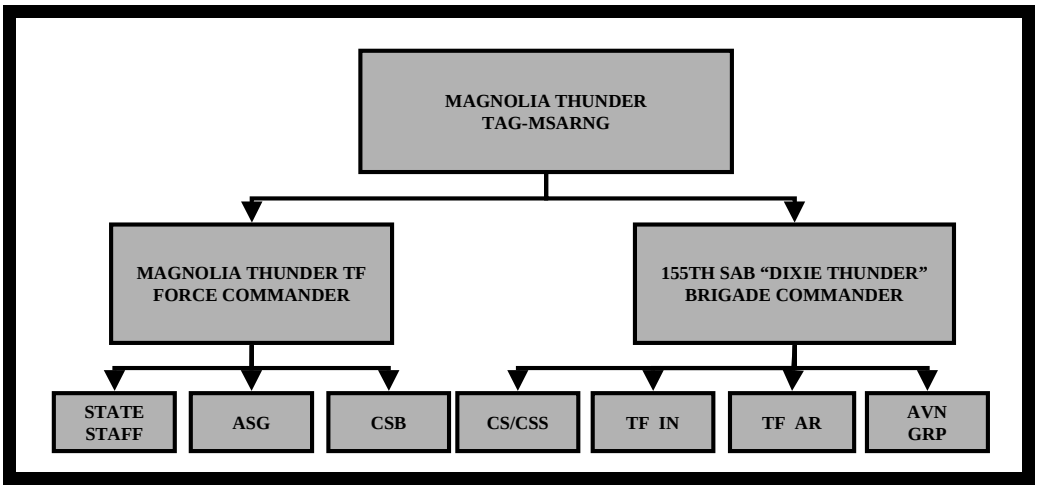


Figure 1. Task Organization

Dixie Thunder Train-up

Additional Training

Gunnery (TT/BT, SIMNETT/CCTT)
Maneuver (PLT & CO)
Simulations (JANUS)
Individual (GPS, MILES II, NVG)

The eight-year CTC rotation cycle for E-Brigades identified in **FORSCOM Regulation 350-2,** ***Reserve Component Training,*** differs from the Active Component cycle identified in **FORSCOM Regulation 350-50-1,** ***Training at the National Training Center.*** Both Dixie Thunder and the MTTF aggressively followed the two year train-up identified in Appendix I of FR 350-50-1 and added additional training (see box) consistent with their needs. The end result was each leader spent over 60 days during the final ramp-up year training for the NTC, plus over 30 days for the rotation itself, compared to the normal 39 days spent during non-rotational years. Many of these days were done on their own time and at their own expense, clearly demonstrating the professional dedication to making the Dixie Thunder rotation a success.

What is a TSB?

A Training Support Brigade (TSB) is a tri-component (AC, RC & NG) organization charged with supporting Reserve Component units in a specific AOR. There are 15 TSBs in the Army's structure, providing one-stop training support for customer units. This concept consolidates the numerous layers of support provided in the past by Readiness Groups, Regional Training Brigades and Detachments, and several other organizations. Each TSB is composed of several battalions; some are pure AC, some are integrated AC/RC, and one is an eSBn which is collocated with, and supports only, a designated E-Brigade.

The Training Support Brigade (TSB) (see box) was also committed to the success of Dixie Thunder. Although TSBs typically do not have a mission to support NTC rotations, their capability of providing an independent set of eyes on plans, as well as full-time augmentation to limited RC staffs, make their role indispensable to achieving desired success at the NTC.

With a focused effort from the entire organization, the TSB supported multiple events in Dixie Thunder's train-up as shown in Figure 2 on page 8. Using assets from each of its battalions and the brigade staff, the TSB supported over 30 separate events, including gunnery, maneuver, simulations and other training. During the inbound and outbound phases, over 20 leaders served with RC units, with an additional 40 supporting Dixie Thunder during the RSO&I and combat operations phase. In addition to this, the TSB operated an Exercise Control Center (ECC) at the NTC with up to 16 officers and NCOs.

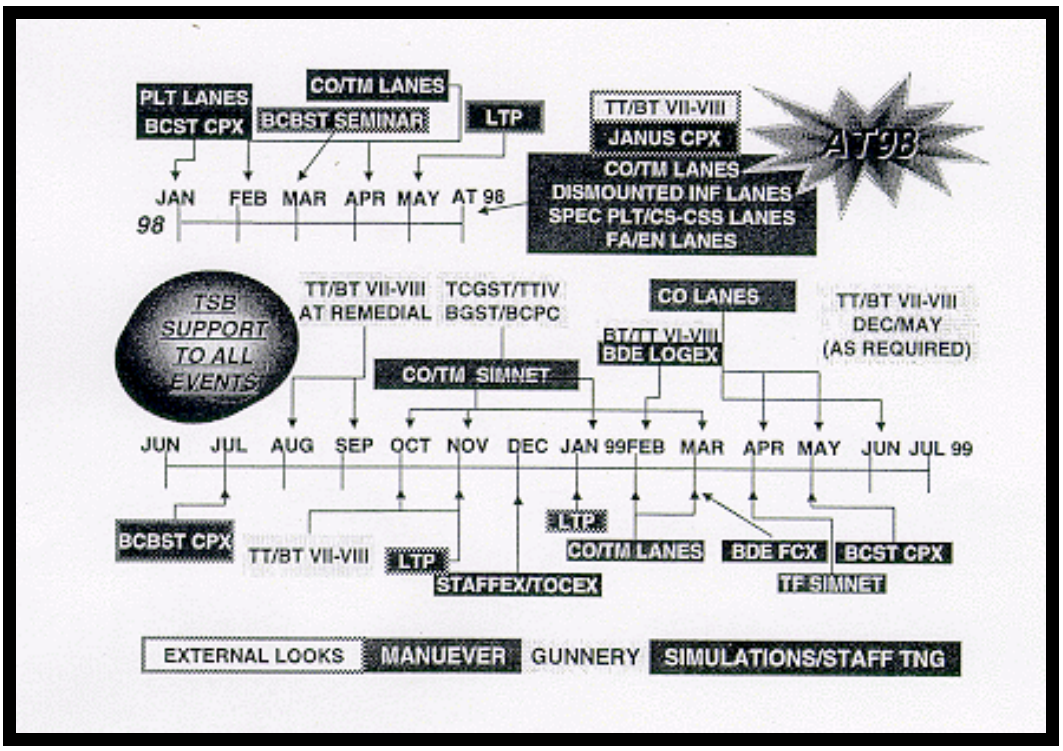


Figure 2. Dixie Thunder Train-up

Inbound/Outbound Train-up

The Magnolia Thunder Task Force quickly realized there is no doctrinal blueprint on how to prepare to support the deployment and redeployment of an E-Brigade to the NTC. Although initial planning and coordination were conducted in 1997 and early 1998, the effort intensified considerably in November 1998. Essential areas included locking in player and support units, completing OPORDs, and a series of reconnoiters, IPRs and rehearsals. The State, both Task Forces and the TSB worked to establish a common view of the battlefield. Essential in this was the common focus and dedication to make the rotation successful. The trust between all organizations and individuals involved became the cornerstone of the operation and provided synergy to meet the challenge. Key support provided by the TSB throughout this period included:

➤ **Assigning a facilitator to each unit, even those outside their AOR.** These officers and NCOs rolled up their sleeves and assisted the units in METL review/crosswalk, planning for train-up and movement planning. Facilitators deployed to the NTC and continued to support their units, as well as conduct evaluations on METL-related tasks and provide AARs and take-home packages for commanders.

➤ **Reviewing OPLANs, orders, synchronization matrices and other products, providing an outside look that highlighted possible shortfalls/conflicts between the task forces' plans.**

➤ **Attending and assisting at primary IPRs, rock drills and rehearsals.** This included all primary TSB players to include the commander, staff and all facilitators, and those deploying to the NTC for the Inbound and Outbound reconnoiters.

➤ **Evaluating all inbound/outbound units at the NTC.** This consisted of reviewing the administrative portions of the Training Assessment Model and providing the unit with AARs, a take-home package and signing Part V of the Training Assessment Model (see box).

➤ **Providing a "Liaison/Assistance" cell to the ASG, contributing additional full-time support for pre-deployment planning and technical subject matter experts in the Transportation and Movement Control arenas.**

➤ **Conducting lane evaluations for Priority units supporting the Inbound and Outbound phases.**

➤ **Deploying an NTC Exercise Control Cell responsible for 24-hour "battle-tracking" and administrative support to all facilitators, lane evaluators and O/C augmentees.** This created better opportunity for tactical training for units involved and more centralized command and control for all Dixie Thunder and supporting operations. In addition, this provided one-stop support for evaluators for both operational and administrative issues, and provided a single interface to the Reserve Component Support Element at the NTC for all Dixie Thunder rotation issues.

THE TRAINING ASSESSMENT MODEL (TAM)

The TAM is a five-part document defined in FR 220-3. The TAM:

- **Provides a framework for continuous, joint planning for training.**
- **Supports effecive training managemnt for RC units.**
- **Is maintained for every unit with "AA" UICs and all derivatives.**
- **Lists tasks required for validating deployment, assessing training, and providing information on readiness.**
- **Is used by an annual training evaluator as the assessment document for AT.**

Figure 3 identifies the primary training events completed by the Inbound/Outbound units as well as key events supported by the TSB.

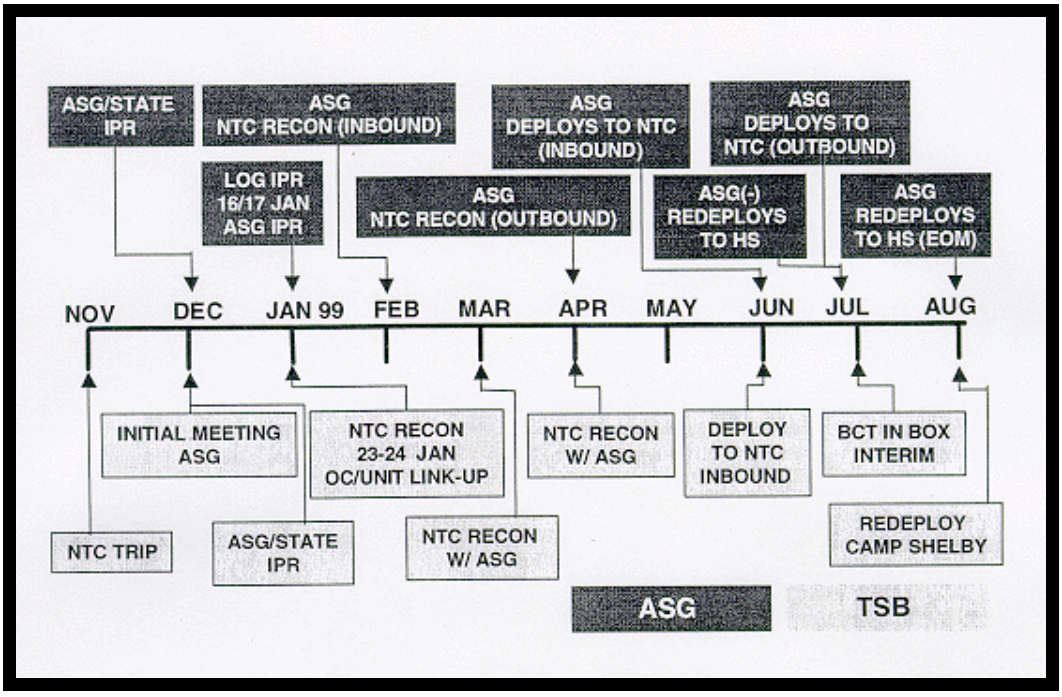


Figure 3. Primary Training and Key Events

Combat Operations Support

The TSB provided "In The Box" combat operations support for these primary areas:

➤ ***Dixie Thunder Support*** - The eSBn of the TSB worked side by side with Dixie Thunder during train-up and all phases of the rotation. Third Brigade soldiers assisted in planning, scenario development, gunnery, JANUS, LTP, Warfighter, deployment, conduct of operations during the battles and redeployment. Support provided and positions assigned during the rotation are depicted in Figure 4 on page 11.

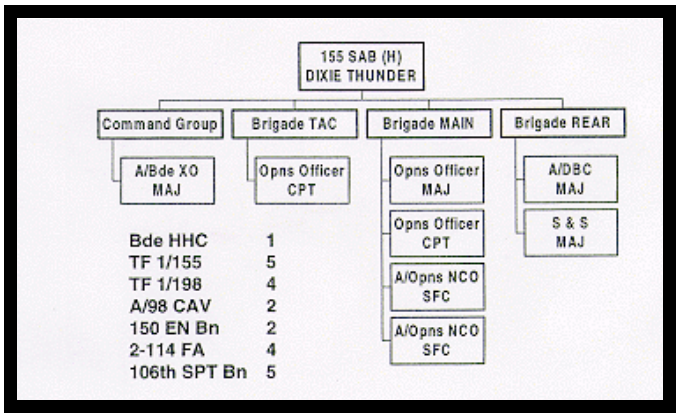


Figure 4. 3d Brigade Support to Dixie Thunder "In The Box"

➤ ***TAM support*** - The TSB provided a unit facilitator/TAM evaluator for the Public Affairs detachment. This unit was unique in that it was evaluated by the NTC O/Cs while conducting its tactical mission, but had no coverage planned for the majority of the time when training outside the Box. The TSB covered the unit while outside the Box.

➤ ***TSB ECC*** - The ECC continued to provide continuous battle-tracking and administrative support to the TSB soldiers at NTC. Additionally, the ECC was heavily engaged in VIP support during this phase.

Lessons Learned

Although the rotation was highly successful, there are some lessons learned from the experience and recommendations for future rotations.

➤ ***"Fully Integrated Train-Up"*** – It is crucial that all units deploying to the NTC train together for at least one year before the deployment. Best place for this to start is at annual training the year prior to the rotation. This dictates identifying the troop list three years out. It requires the National Guard Bureau (NGB), U.S. Army Reserve Command (USARC), and the CONUSA to jointly identify and lock in the troop list and required AC support of their respective units.

➤ ***"Train as you Fight"*** - The inbound and outbound phases should be in a tactical environment from the arrival at the equipment point of debarkation until the equipment is shipped back to home station. It is imperative to make the most of a CTC rotation, whether going "In The Box" or not. Units must train as they will fight. A scenario, complete with OPFOR, could easily be applied to make inbound and outbound phases tactical. Download operations at Yermo could incorporate tasks to include local and convoy security, field operations, reaction to enemy attacks, NBC play, physical and communications security and also civilians on the battlefield. TSBs should assist by helping develop training plans, conducting tactical lanes and assisting with OPFOR support.

➤ ***"Mobilize the Force"*** - All units should treat this exercise as a mobilization, and prepare IAW **FR 500-3-3,** ***FORSCOM Mobilization and Deployment Planning System, Volume 3, Reserve Component Commander's Handbook.*** Units should conduct their pre-mobilization set as identified in their mobilization plan. Units could use the Joint Operations Planning and Execution System (JOPES) to ship/track vehicle movement. TSB support could include mobilization assistance teams (MATs) and facilitator support.

➤ ***"The Army"*** - The evaluation teams (TAM & Lane) for this rotation consisted of soldiers from numerous TSBs from both CONUSAs. These evaluators should be attached to the primary supporting TSB at least two months out, ensuring synergy and commonality between all evaluators and their supported units. This time should be spent reviewing the TAM before departing for the NTC, assisting the unit with IDT Lanes, preparing Lane Books and familiarizing themselves with applicable unit SOPs and the supporting TSB.

➤ ***"O/C Augmentees"*** - In an AC rotation, augmentees usually come from the brigade's parent division or corps. This structure does not exist for the E-Brigade. O/C support should come from the associated AC division, or if unavailable from the division, NGB should task with the CONUSA serving as executive agent for the taskings.

➤ ***"Brief the Plan"*** - Two years out, the E-Brigade commander should assess and validate his unit and brief this to the supporting CONUSA Commander. This will determine what level (Brigade or Task Force) the brigade will fight at the NTC and identify shortfalls to the CONUSA, NGB and USARC, allowing them to bring their resources to bear to create the conditions for success for the E-Brigade.

➤ ***"Simulation vs Maneuver"*** - Based on the training assessment of his unit, the E-Brigade Commander must determine specific requirements for simulation and maneuver. These events should be tailored to how the brigade will fight, and not geared to a standard AC rotation. The 1st Brigade (Simulation) of the supporting Training Support Division should play an instrumental role here.

➤ ***"Train for Rigor"*** - Key train-up exercises (JANUS/LTP/CPX/Warfighter) should be more rigorous, incorporating demanding, continuous operations over a minimum 36- to 48-hour period. These exercises should include planning for future operations while engaged in the current fight. TSBs could assist with manpower to ensure uninterrupted coverage/play.

➤ ***"Join the Fight Early"*** - The liaison cell provided by the TSB to the ASG assisted the planning for the inbound and outbound phases. The cell provided administrative support to the limited full-time staff, as well as technical and tactical input when requested. Activated two months before the inbound phase, it would have been significantly more helpful being incorporated six months out.

➤ ***"Track the Battle"*** - During the inbound and outbound phases, units should identify the commander's CIR, then plan and train on how to track these requirements. TSBs can assist in SOP development and synchronization.

➤ ***"Military Decision-Making Process"*** - Staffs should incorporate this process from the beginning, three years out, to ensure fluidity and teamwork during the rotation. TSBs can assist in teaching, coaching and evaluating staffs in this area.

CONCLUSION

The Magnolia Thunder rotation was unique in that it began to exercise the full spectrum of RC deployment operations. It was successful, thanks to the tremendous efforts and resolute cooperation of all who participated. TSBs, like the TSB in this instance, can bring assets and expertise to the planning and execution of the operation. When incorporated early enough, the TSB can significantly enhance the training experience for an E-Brigade's rotation to the NTC. While a rotation will never be easy, the wisely integrated RC/AC team is the foundation for a successful one!✪

IPB at the Battery Level

by CPT Terry Michaels

Too many batteries that rotate through CMTC get to meet the enemy "up close and personal." Battery defense and early warning do not always function in an effective, coordinated way to protect the unit from enemy contact.

Although FM 6-50 dedicates an annex to battery defense, units do not have a system to prepare or execute a defensive plan. Effective artillery relies upon the battery's defensive capability -- its ability to protect equipment and soldiers as well as its ability to provide continued support to maneuver during the battle. A successful defensive plan depends on the battery commander (BC)'s understanding of the type of enemy he faces and the terrain in which he will operate. The BC can use a modified IPB to help build the defense plan.

Defensive planning should begin when the BC receives the location that the battery is to occupy. Just as the S2 conducts an IPB for the battalion/bde, the BC must conduct an IPB of his area of operations. His IPB must focus on two areas:

1. Threat analysis.
2. Terrain analysis.

Step 1. The Threat **-- What does the enemy look like?** When the Bn S2 briefs the operations order, he discusses the enemy in terms of battalions or companies. The battery commander should break these down to assess what he may face at the battery location:

a. Number = Platoons or sections.

b. Avenues of approach = vehicles in line or two-vehicle teams.

c. Speed of enemy movement = determines how far away OPs need to be from the unit.

EXAMPLE: If the enemy travels 1 km every 3 minutes, the OP needs to be at least 2 km from the battery to give ample warning to the unit.

d. The dismounted threat = can cause as much havoc as a mechanized threat.

Techniques:

1. Consider reconnaissance teams and irregular forces when planning for the defense.

2. OPs in front of the position should be augmented with LP/OPs to cover dismounted avenues from woods or area tracked vehicles cannot travel.

EXAMPLE: Peace Support Operations (PSOs) threat considerations are distinctly different from high intensity operations. Priority would shift from a mounted to a dismounted enemy, thus placing a higher priority on soldier's protection than concealment.

Step 2. Terrain Analysis. After the battery commander has determined the type of enemy he may see on the battlefield, he must analyze the terrain in which his battery or platoon will operate.

Technique: Use OCOKA (**O**bservation, **C**over and Concealment, **O**bstacles, **K**ey terrain, **A**venues of approach) to analyze the terrain.

1. Observation:

a. Focus on the enemy's ability to see the position.

☞ **Positioning the battery or platoon on terrain that can be observed 2-3 km away is inviting an enemy force to engage the unit.**

☞ **Positions should allow the unit to remain hidden from an approaching force.**

b. Select potential observation points around the battery/platoon that will give early warning in the event of enemy contact.

c. Carefully plan OPs. They can mean the difference between the life or death of a unit.

2. Cover and Concealment: For approaching mechanized forces:

a. Remain concealed.

b. Use trails or back road movement.

c. Do not depend on the same roads the enemy will use in their advance.

d. Availability of treelines and masking terrain are critical to concealment.

3. Obstacles:

a. Position the battery behind terrain that will slow or disrupt the enemy's movement.

b. Using forests or ridges as obstacles to enemy movement enhances the unit's survivability.

c. Use lateral movement to get on a route used for advance. Enemy forces rarely move laterally from high speed avenues unless they have sighted a friendly unit or the friendly unit is situated near an enemy objective.

4. Key terrain:

a. Any terrain that will affect the defense of the unit.

b. Examine major roads near the position, potential enemy objectives, towns.

c. During defensive operations, select positions away from road networks.

d. During offensive operations, select positions near roads. Use quick displacement to move forward and support maneuver.

5. Avenues of approach: View Avenues of approach from both the enemy and friendly point of view.

a. Enemy point of view:

- ☞ **Identify avenues into the position based on the threat.**
- ☞ **Take note of both mounted and dismounted avenues for future LP/OP locations.**
- ☞ **Positions with high speed avenues of approach:**
  - ✔ **Avoid during defensive operations.**
  - ✔ **Take advantages during offensive operations.**
- ☞ **Use a time-distance relationship to establish OPs.**
  - ✔ **Provide the unit ample warning of an approaching enemy.**
  - ✔ **OPs must give the btry/plt at least 5 to 10 minutes of warning to allow the unit to move or prepare for a direct fire engagement.**

b. Friendly point of view:

- ☞ **Identify egress routes for hasty displacement. Egress routes must be off main thoroughfares.**
- ☞ **Identify routes to allow the unit to displace forward during offensive action. Deconflict maneuver movement routes to ensure that road networks which allow the units easy movement do not cause traffic jams.**

Regardless of the method, threat and terrain analyses are prerequisites for successful FA battery mission. Thorough analysis maximizes the effectiveness of the firing battery's defensive capability and allows it to survive and be successful on the modern battlefield. Once the battery IPB is accomplished, the commander can accept risk just as a maneuver commander accepts risk. Without analysis, survival is a gamble. If the BC briefs the IPB as part of his operations order to the battery leadership, the IPB provides the additional benefit of giving the 1SG, PLT LDRs and PLT SGTs a starting point on their perimeter defense plans, thus reducing the chance the battery will get up close and personal with the enemy.✪

Infantry Battalion Command and Control (C^2) Facilities
The Command Group

by LTC Daniel Klecker and CPT Jay Peterson

As outlined in **FM 7-20**, ***The Infantry Battalion,*** Appendix B, C^2 facilities available to the light infantry battalion task force include the main command post which encompasses the tactical operations center (TOC), combat trains, field trains and alternate command posts. Each of these facilities has a doctrinal purpose and suggested personnel and equipment to perform their crucial functions. At the battalion level, establishing a command group presents a doctrinally based, temporary C^2 node that provides the commander additional flexibility and capability to optimally complete his combat mission.

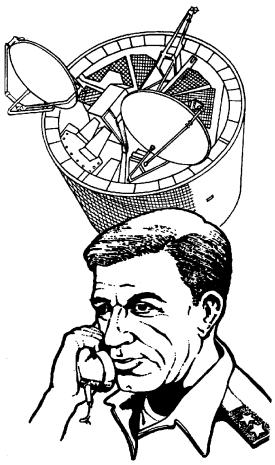
The command group is a temporarily task-organized group of key personnel and equipment, including the commander. The commander designates the command group to complete a specific task, usually to facilitate C^2 of the immediate battle. The task and purpose of the command group, its configuration, and duration of echelonment are all mission, enemy, terrain, troops, and time available (METT-T)-driven. The commander identifies these issues during his estimate; they are included in the command and control battlefield operating system (C^2 BOS) staff estimate, and confirmed during the staff decisionmaking process. Configuration is normally subject to specific unit standing operating procedures (SOPs). It is often locally referred to as a "tactical" CP (TAC) or an Assault CP.

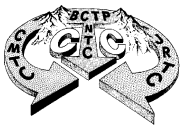
This article discusses considerations and techniques for use of the command group. Techniques and procedures demonstrated by units training at the Joint Readiness Training Center (JRTC) are the basis for these observations. Generally, forced entry operations generate the best examples for discussion of command group issues, and will often be used for illustration purposes in this article.

Echelonment of C^2 Nodes

The genesis of the decision for whether or not to echelon a command group forward during a given mission is the commander's estimate. During the commander's guidance, he will define the parameters of his intent to the staff, who will incorporate his guidance into a course-of-action development and ultimately into the operations order.

A technique to determine the exact configuration of the command group is by thorough analysis of echelonment of the C^2 BOS. This analysis becomes part of the C^2 continuous estimate. The staff incorporates this information into his course-of-action development (Figure 1 on page 16) and deliberate wargaming. Another example is the BOS analysis for echelonment of command and control is the C^2 portion of a wargaming worksheet that aids in synchronizing C^2.





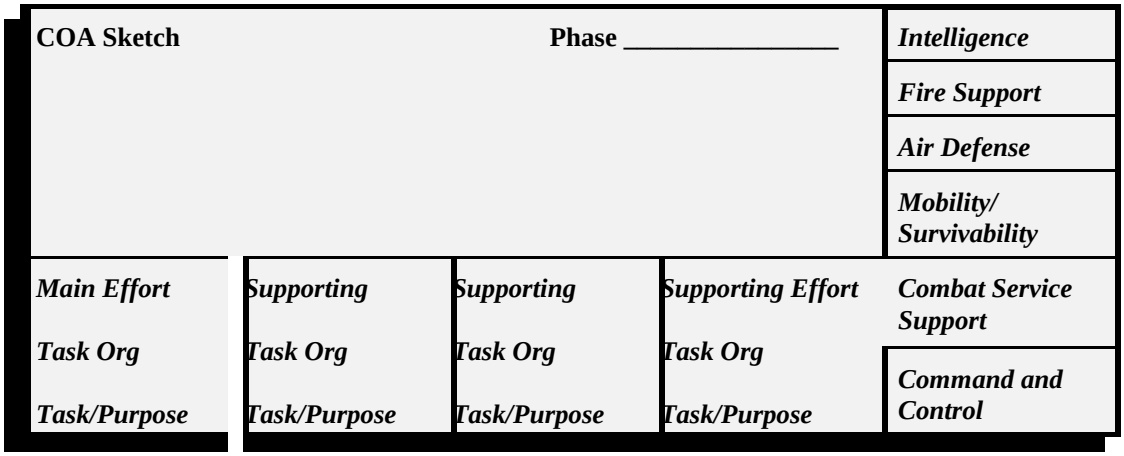


Figure 1. COA Development Tool (Generic)

Often overlooked in the process is the appreciation of the limitations of the austere command group, particularly during continuous operations. For forced entry operations, the command group, a temporary facility, should deploy for a short duration only. The command group must be capable of completing all necessary tasks of the main command post (CP), until the main CP can echelon forward and become operational. Such tasks include establishing and maintaining communications, security, combat information management, and targeting or synchronization processes. Operations that extend beyond 24 hours in duration normally exceed the optimal capabilities of the command group; the cumulative effects of sleep deprivation and stress affect its ability to provide adequate C^2.

To best provide C^2 until the main CP is functional, the command group must have all appropriate combat information management tools. This may include tracking charts, maps and overlays. Upon establishment of the main CP, the command group can quickly and accurately transfer all necessary information to the TOC.

A useful technique is to create 8.5 x 11-inch replications of essential battle-tracking charts, laminate them, and place them in a three-ring binder. The unit can maintain all essential combat information management documents in this binder, to include blank copies of DA Form 1594, to facilitate maintaining a journal. The main CP updates the binder prior to the command group's departure from the TOC, and the command group maintains the binder's accuracy while forward. An appropriate suggestion is that the unit maintain a copy of this three-ring binder at each C^2 node.

Succession of C^2 Facilities

Each C^2 node should have the appropriate tools to perform its unique function; some of these mentioned earlier. While the echelonment of C^2 nodes should be a deliberate decision based upon due consideration of all factors of METT-T, similar situations will likely require similar C^2 capabilities. These tend to become somewhat predictable. Units should validate configurations of personnel and equipment, considering both mounted and dismounted options, and include the determined structures in the unit SOP. These templates are useful references and adjustable to a given situation. By including them in the unit SOP, subordinates anticipate actions earlier, improving their performance and efficiency.

The unit SOP should further address the displacement criteria for each C^2 node. There should be triggers for establishment of a command group, to include when to consider echelonment forward, and when the requirement for a separate node comes to an end. The unit SOP should also detail the succession of C^2 node priority, and the criteria for assuming C^2. For example, during routine combat operations, the combat trains command post (CTCP) has the capability to assume the functions of the main CP should the primary be destroyed. Loss of communication with he main CP for a set time period should trigger the CTCP to assume the main CP functions. This demonstrates the types of concerns that can be predictable and incorporated into the unit SOP.

Alternate C^2 Nodes

The main effort will usually have the immediate attention of the command group. Alternate C^2 nodes have effectively provided better C^2 at other critical points on the battlefield, particularly during forced entry operations.

Sometimes referred to as "split TAC operations," a useful technique to consider is the operation of two, temporary command nodes until the complete maturation of all C^2 facilities. In this example, a primary command group (TAC 1) is in proximity to the main effort, while the battalion task force is securing an airfield and destroying enemy forces in zone. The battalion may temporarily establish an alternate command post (TAC 2) to provide C^2 of another concurrent and essential task. TAC 2 is under the supervision of the battalion executive officer and remains functional until their tasks are complete.

Another example of effective use of an alternate C^2 node is the early forward echelonment of essential logistics C^2. This provides the unit the capability to oversee the arrival and marshaling of assets as they arrive into theater simultaneously with combat operations ongoing. Like the scenario illustrated above, the command group can provide C^2 for the immediate close battle involved with initial or forced entry operations (TAC 1). Key assets, such as the main command post with the TOC and key CSS elements, may be deployed by follow-on ground or air means. Recognizing the criticality of ensuring successful, timely arrival of these assets, the commander may elect to command and control these concurrent activities with an alternate C^2 node. He could configure TAC 2, under the supervision of his executive officer. Upon arrival of the main CP, TAC 2 may discontinue operations with the TOC assuming the battle.

The C^2 doctrine allows considerable latitude for commanders to tailor their command group to best fit any situation. Optimizing the location and configuration of the command group requires thorough estimates, deliberate planning and meticulous wargamming. Thoughtful consideration of the command group can significantly enhance C^2 and, ultimately, mission success.✪

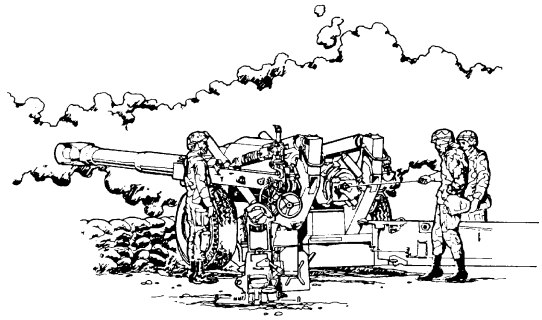
FIRE SUPPORT and SMOKE

by SFC Derrick E. Broadway

Following are two examples of how failure to use smoke for obscuration proved to be fatal at company level:

MISSION ONE: The company was to follow the lead element and establish a support-by-fire position overlooking the objective area to allow follow-on units to attack the objective. During the execution phase, the company crossed a large open area and began to take casualties from direct and indirect fires. The company was caught in the open and was reduced to 10-percent combat power within nine minutes.

MISSION TWO: The company was tasked to trail the scout element, maneuver onto a known enemy position, destroy it, and establish a support-by-fire position overlooking a weapon storage site. This would allow follow-on units to secure the site. During the execution phase, the company halted at a choke point and deployed dismounts to clear the surrounding wood line. The company began receiving direct fires from their objective area. Lead elements were attritted. The dismount squads identified the location of the enemy weapon system and initiated the call for fire. The result was 12 rounds of mortar HE on their own position (poor target location). Several minutes later, another element of the task force identified dismounts in the same area and called for artillery fires which resulted in more fratricide.



Technique: Use of smoke would have provided a more successful outcome of the mission.

In mission one, the use of smoke would have screened the company's movement through the open area.

In mission two, obscuring the enemy position would have allowed the commander to maneuver his force onto the enemy position and destroy him.✪

NESTED CONCEPTS

Are You a Main Effort, a Supporting Effort, or a Wasted Effort?*

by LTC Michael Shields

***The target audience for this article is task force planners and company commanders.

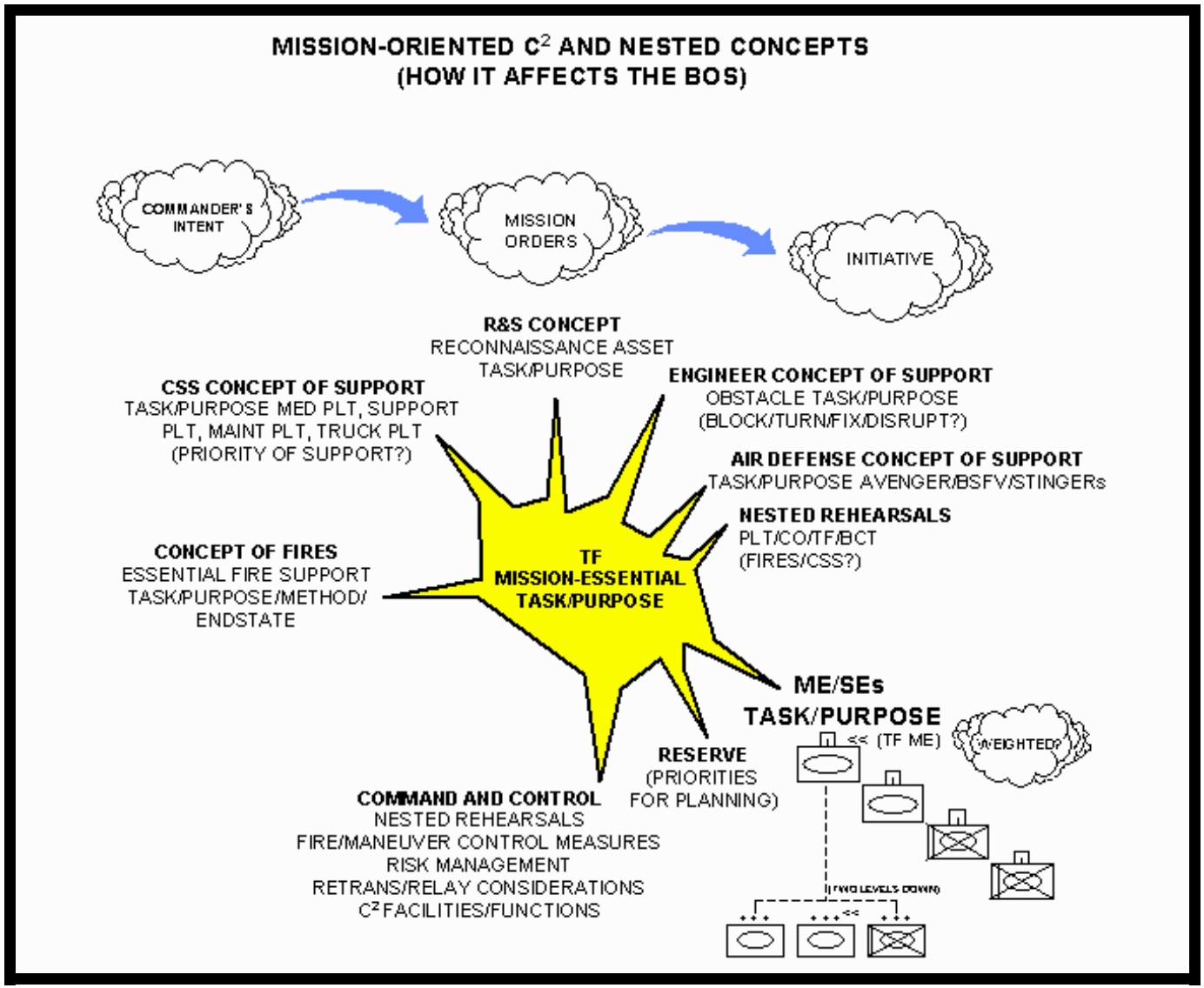
Nested concepts is not clearly understood at the tactical level and, as a result, units are having difficulty focusing combat power and getting every asset to contribute to the main effort's success. What is meant by nested concepts? It is difficult to find doctrine to back up the concept. It is often disguised in other terms (i.e., unity of effort). Nested concepts is much more than the linkage between subordinate unit task/purpose with the task force (TF) main effort's task/purpose. It also includes the integration of all the battlefield operating systems (BOSs) (i.e., concept of fires/obstacle integration/concept of support and the task/purpose of combat support and combat service support units) during the course-of-action development process. For the purpose of this article, a TF defensive concept/scheme of maneuver and steps to building a TF defense are used to illustrate the main points.

The most definitive reference available for nested concepts is General William E. DuPuy's article in ***Army,*** August 1988, page 31, **"Concepts of Operation: The Heart of Command, The Tool of Doctrine",** which states:

> **Cascading concepts carry the top commander's intentions to the lowest levels, and the nesting of those concepts traces the critical path of concentration and priorities. This is the phenomenon the Germans called *schwerpunkt.* The concepts are nested like mixing bowls in a kitchen. Each must fit within the confines of the larger and accommodate the next smaller and so on down to the squad, the tank, and the brave soldier himself. It is the only method by which the talent and initiative of commanders and troops at every level can be engaged and exploited.**

FM 100-5, the Army's capstone manual, addresses unity of effort as a principle of war and details the importance of initiative as a tenet of Army Operations. FM 7-20 and FM 7-10 mention mission-oriented C^2 and mission-type orders. The bottom line is that the commander's intent must be clear and understood two levels down. Subordinate commanders and BOS representatives must understand how they fit within the framework of their higher commander's concept and intent (their unique contribution to the fight) within the construct of nested concepts.

One problem that contributes to the inability of a TF to achieve nested concepts, is that often, units do not understand the course-of-action (COA) development process. Doctrinally, there is a method for COA development found in FM 101-5 and several publications with tactics, techniques, and procedures such as the **CALL Newsletter No. 95-12 Update,** May 97, ***Military Decision Making.*** The common guidance is that after options/conceptual possibilities have been identified and forces arrayed (platoon level), the main effort and supporting effort's purposes and tasks must be designated, ensuring that supporting efforts are linked to the main effort. Planners need to ensure that units are appropriately weighted with combat power/resources/priorities to accomplish their assigned task and purpose. During COA development, BOS integration is required to achieve nested concepts and synchronization (refined during COA analysis) within the TF. Nested concepts should be evident following Step 4 of the COA development process, Develop the Scheme of Maneuver. This process includes development of the concept for reconnaissance and security operations, maneuver concept, concept of fires, integration of obstacle effects with maneuver and fires, air defense, combat support/combat service support (CSS), and C^2. Figure 1 on page 20 demonstrates how selected TF BOS are linked to the TF task and purpose.


MISSION-ORIENTED C2 AND NESTED CONCEPTS
(HOW IT AFFECTS THE BOS)
COMMANDER'S INTENT
MISSION ORDERS
INITIATIVE
R&S CONCEPT
RECONNAISSANCE ASSET
TASK/PURPOSE
CSS CONCEPT OF SUPPORT
TASK/PURPOSE MED PLT, SUPPORT PLT, MAINT PLT, TRUCK PLT
(PRIORITY OF SUPPORT?)
ENGINEER CONCEPT OF SUPPORT
OBSTACLE TASK/PURPOSE
(BLOCK/TURN/FIX/DISRUPT?)
AIR DEFENSE CONCEPT OF SUPPORT
TASK/PURPOSE AVENGER/BSFV/STINGERs
NESTED REHEARSALS
PLT/CO/TF/BCT
(FIRES/CSS?)
CONCEPT OF FIRES
ESSENTIAL FIRE SUPPORT
TASK/PURPOSE/METHOD/
ENDSTATE
TF
MISSION-ESSENTIAL
TASK/PURPOSE
ME/SEs
TASK/PURPOSE
(TF ME)
WEIGHTED?
RESERVE
(PRIORITIES
FOR PLANNING)
COMMAND AND CONTROL
NESTED REHEARSALS
FIRE/MANEUVER CONTROL MEASURES
RISK MANAGEMENT
RETRANS/RELAY CONSIDERATIONS
C2 FACILITIES/FUNCTIONS
(TWO LEVELS DOWN)

If the TF staff does not address these issues, they fail in developing a course of action and are not prepared for wargaming (particularly important when only developing one COA). Time spent wargaming will digress into developing the TF course of action instead of synchronizing the TF fight (wargaming will probably occur during the TF Rockdrill or not at all).

The following discussion uses elements of the BOS to demonstrate "a way" to achieve nested concepts. The examples of nested concepts by BOS in the article are not prescriptive. The concept sketches under each BOS are included to assist in the visualization of the narrative. They do not represent an actual TF plan during a rotation. Throughout the concept sketches, the seven steps to building the TF defense are addressed:

1. ***Know the enemy and visualize how he will fight.***

2. ***Select where and determine how to kill the enemy.***

3. ***Position obstacle groups to support direct fires.***

4. ***Plan indirect fires to support direct fires and obstacles.***

5. ***Position forces to kill him with direct fires.***

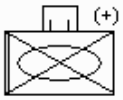
6. ***Complete the plan.***

7. ***Rehearse.***

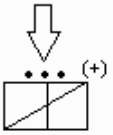
Note. Tactical tasks used in this article are extracted from FM 101-5 but are not the focus in terms of nested concepts. ***Purposes*** are much more important.

Intelligence. When developing the concept for reconnaissance and surveillance operations (R&S), consideration should be given to brigade combat team (BCT) assets task and purpose and TF assets task and purpose. The TF must carefully analyze the requirements from the BCT and its own internally generated intelligence requirements, specifically the priority information requirements (PIR) that must be answered and what assets are available to answer the PIR. TF R&S efforts should be focused on answering PIR tied to decision points and where to focus combat power/fires to destroy the enemy. Some R&S assets may be covering an exposed flank, potential enemy LZ, or an infantry infiltration lane. Even if assets are covering an NAI where the TF has assumed risk, they still have a unique contribution to the TF fight and its ability to achieve its task and purpose. The following examples demonstrates a link between reconnaissance assets task/purpose and the TF task/purpose and what it could look like. See Figures 2 and 3 on pages 22 and 23.

LINKAGE BETWEEN COLLECTION ASSET TASK/PURPOSE WITH TF TASK/PURPOSE



T: DESTROY THE 173RD MRR.
P: RETAIN THE SOUTHERN EXITS TO THE PASS AND PREVENT PENETRATION OF THE BDE AND ENVELOPMENT OF THE DIV ME.



T: SCREEN.
P: IDENTIFY THE LOCATION OF ENEMY MAIN ATTACK AND PREVENT THE SURPRISE OF THE TF.

SCTs
T: OBSERVE NAIs 1-4. (FINDERS).
P: IDENTIFY LOCATION OF ENEMY RECONNAISSANCE FORCES AND MAIN ATTACK.

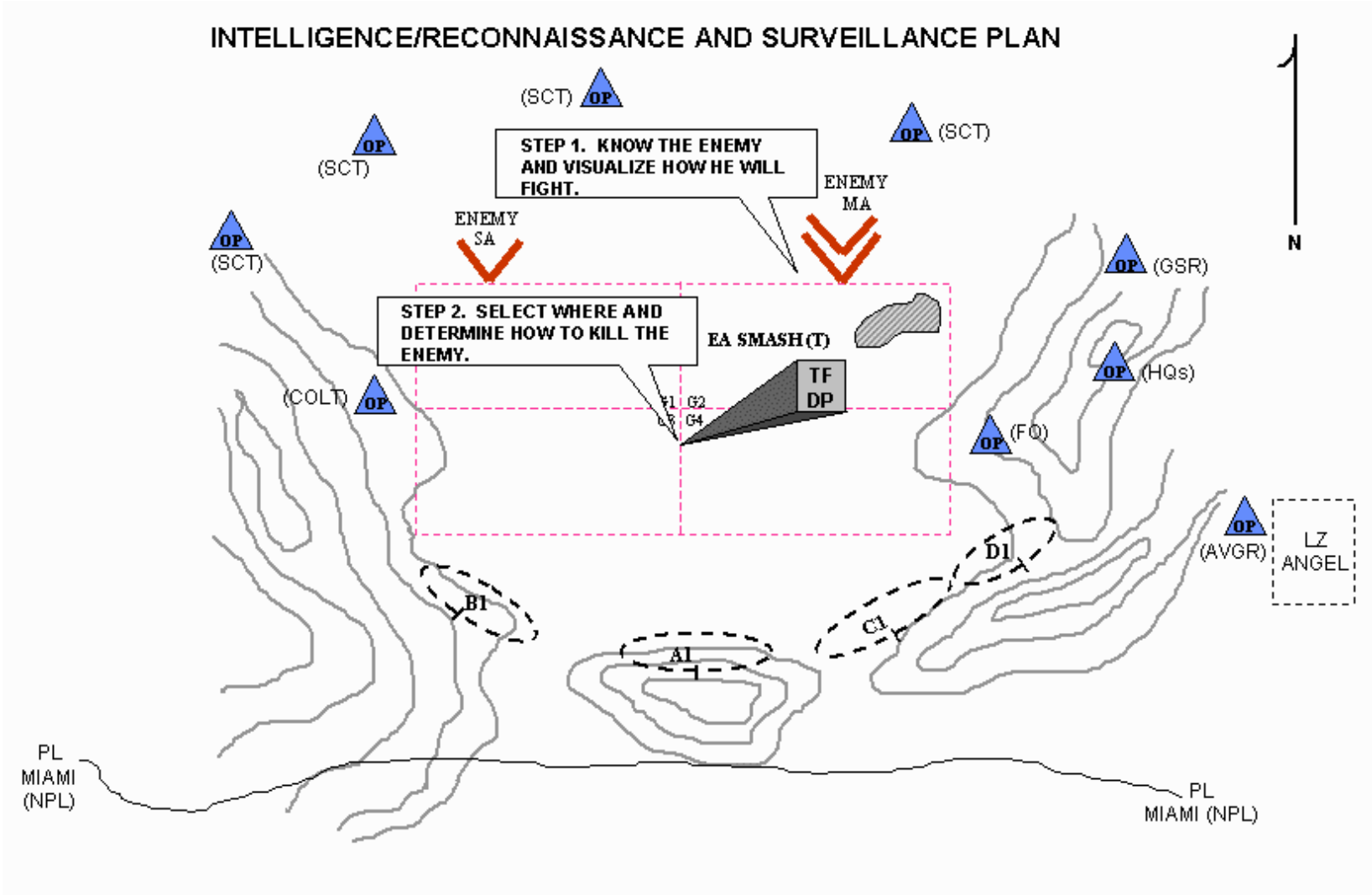
COLT
T: OBSERVE TAI 5 (AD1010).
P: IDENTIFY ENEMY BREACH EFFORT IN THE WEST AND PROVIDE TERMINAL GUIDANCE FOR CPHD. IOT DESTROY T-80 TANKS WITH PLOWS AT THE BLOCK OBSTACLE (MB01).

GSR
T: OBSERVE NAI 6 (MOB CORR INTO TF FLANK).
P: IDENTIFY LOCATION OF ENVELOPMENT DETACH. TO PREVENT THE SURPRISE OF THE ME FROM THE EAST.

AVGR
T: OBSERVE NAI 7 (LZ) AND ATTRIT.
P: IDENTIFY LOCATION OF AASLT FORCES AND PREVENT DISRUPTION OF MBA DEFENSIVE PREPARATION.

*TM D (M) FO TEAM (WFSV); TASK: OBSERVE TAI 3 (GROUP A1D). ADJUST FIRE TO DESTROY ENEMY BREACH ASSETS AT TURN OBSTACLE (MT01).
PURPOSE: ALLOW C (T) AND D (M) TO DESTROY ENEMY BREACH FORCE WITH DIRECT FIRE.

FIGURE 2.


INTELLIGENCE/RECONNAISSANCE AND SURVEILLANCE PLAN
(SCT) OP
OP (SCT)
OP (SCT)
STEP 1. KNOW THE ENEMY AND VISUALIZE HOW HE WILL FIGHT.
ENEMY MA
ENEMY SA
OP (SCT)
N
OP (GSR)
STEP 2. SELECT WHERE AND DETERMINE HOW TO KILL THE ENEMY.
EA SMASH (T)
TF DP
OP (HQs)
(COLT) OP
G1 G2
G3 G4
OP (FO)
OP (AVGR)
LZ ANGEL
D1
B1
C1
A1
PL MIAMI (NPL)
PL MIAMI (NPL)

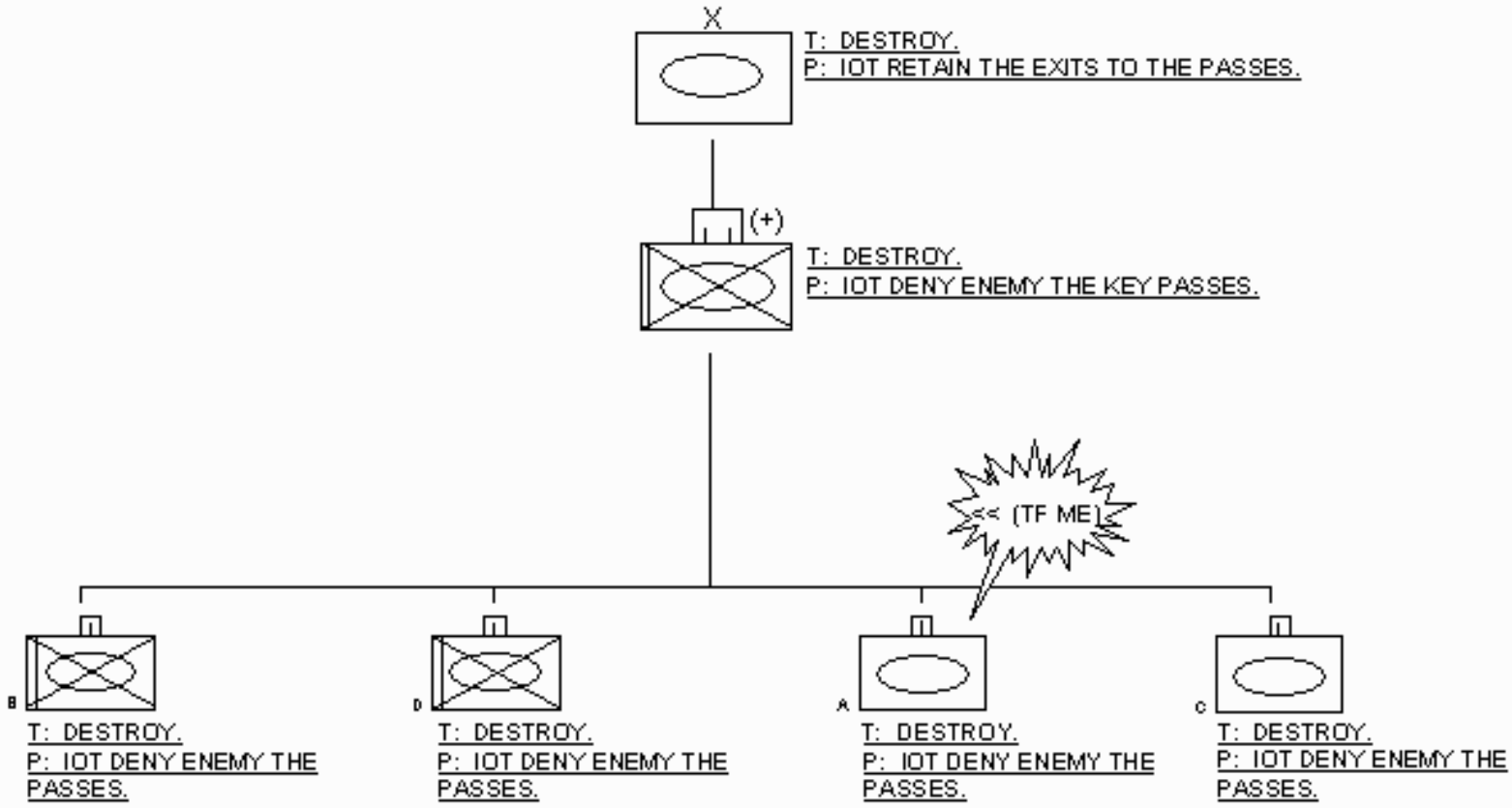
Maneuver. Once the commander has visualized how the enemy will fight, where/how to kill the enemy and how to get him there, he develops a scheme of maneuver that positions forces to destroy the enemy with direct fires **(Step 5, *Building the TF Defense).*** Achieving nested concepts ensures that the TF supporting efforts contribute to the main effort accomplishing the mission. That is not to say that a supporting effort can't achieve the TF purpose but by operational design, the main effort accomplishes the TF mission at the decisive point.

Units use a variety of tools during the planning process to track task/purpose and nested concepts (i.e., task/purpose trees). Most task forces, however, do not understand the concept (and to a degree COA development) and the tools are not as effective as they could be. Figure 4 on page 25 shows an actual example of a TF tactical operations center (TOC) chart scaled down to maneuver units, used to track nested concepts during a rotation. The chart was ineffective because the company tasks and purposes are all the same. Specialty platoons task and purpose have not been addressed.

A further indicator that there is a problem is the maneuver paragraph of the base order, which also failed to link supporting effort's task and purpose and the main effort's task and purpose. The following questions should be asked: 1) Why are the CO/TM tasks and purposes the same? 2) How do the supporting efforts enable the main effort to achieve its task and purpose? 3) What is the link between the main effort's task and purpose and the TF task and purpose? If a reserve is designated, what are the priorities for planning? (See Figures 5, 6, and 7 on pages 26, 27, and 28.)

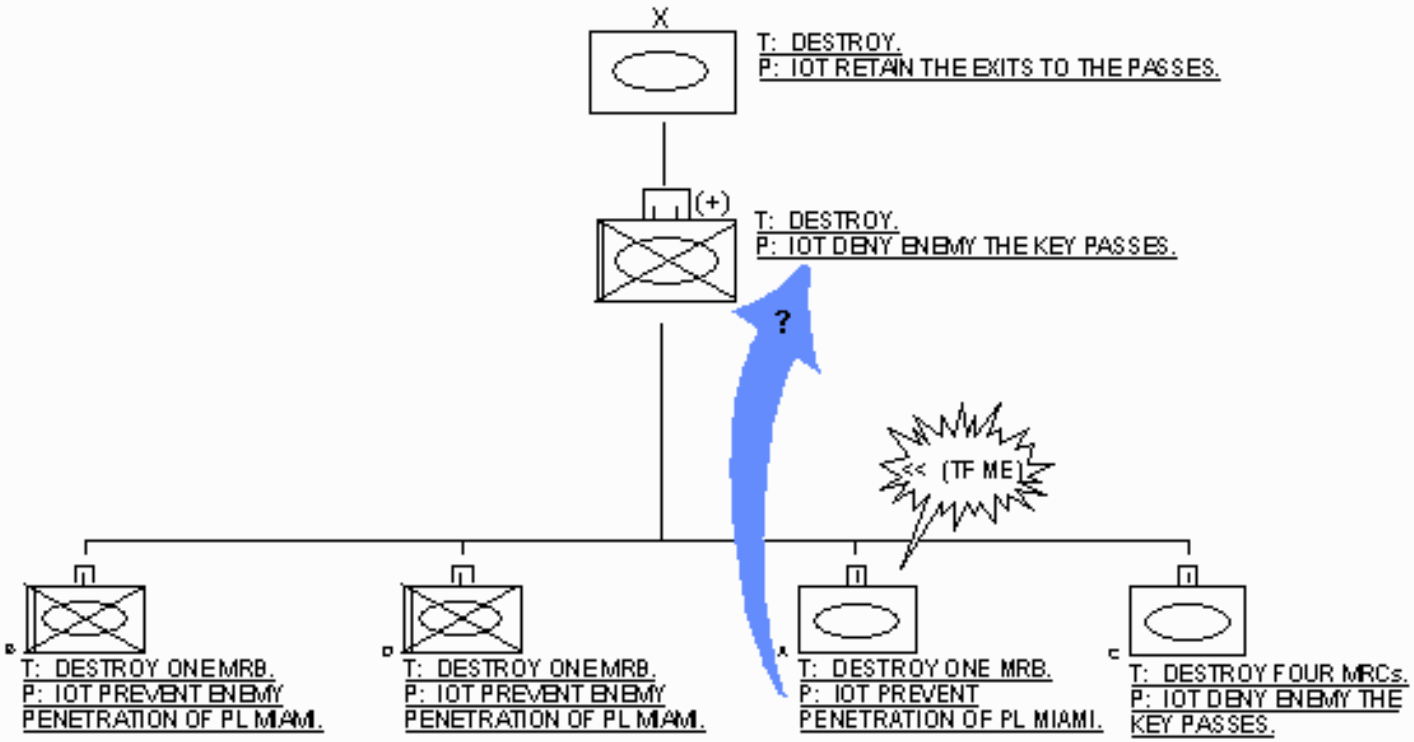
Mobility/Countermobility/Survivability. The concept of engineer support should be integrated with maneuver and fires during COA development. Consideration must be given to the task and purpose of engineer assets as they relate to countermobility, mobility, and survivability and how they are linked to the scheme of maneuver/fires **(Step 3, *Building the TF Defense).*** Obstacle intent must articulate and visualize how the TF commander wants to use tactical obstacles. For countermobility, the TF commander considers the task and purpose of reinforcing tactical obstacles, such as directed obstacles (consider obstacle group effects: turn/block/fix/disrupt, and relative location), situational obstacles (executed as need identified), and reserve obstacles (execution authority restricted). Tactical obstacles and direct/indirect fires manipulate the enemy in a way that supports the commander's intent and scheme of maneuver. Obstacle effects drive the integration of indirect fires and direct fires. Protective obstacles (hasty and deliberate) and individual obstacles (up to the imagination of the soldier) are planned/executed at company and platoon levels and contribute to the CO/TM and TF achieving their task and purpose (consider use of tactical, protective, and supplementary wire). The diagrams on pages 29 and 30 illustrate what the link between the countermobility effort and the TF task and purpose could look like.

ACTUAL NESTED CONCEPTS TOC CHART FROM ROTATION



NOTE: ALL COMPANIES TASK AND PURPOSE THE SAME. POSTED IN TOC DURING COA DEVELOPMENT AND USED AS BRIEFING TOOL DURING OPORD BRIEF.

PROPOSED TASK AND PURPOSES EXTRACTED FROM MANEUVER PARAGRAPH IN TF OPORD



NOTE: DIFFERENT FROM CONCEPT TREE IN PREVIOUS CHART WHICH WAS DISPLAYED AT TF OPORD. CONFUSION BETWEEN COMPANY COMMANDERS STARTING TO SET IN. A CO CDR...HOW AM I WEIGHTED? HOW DO THE OTHER UNITS SUPPORT ME ACHIEVING MY TASK AND PURPOSE?.....GOOD QUESTIONS.

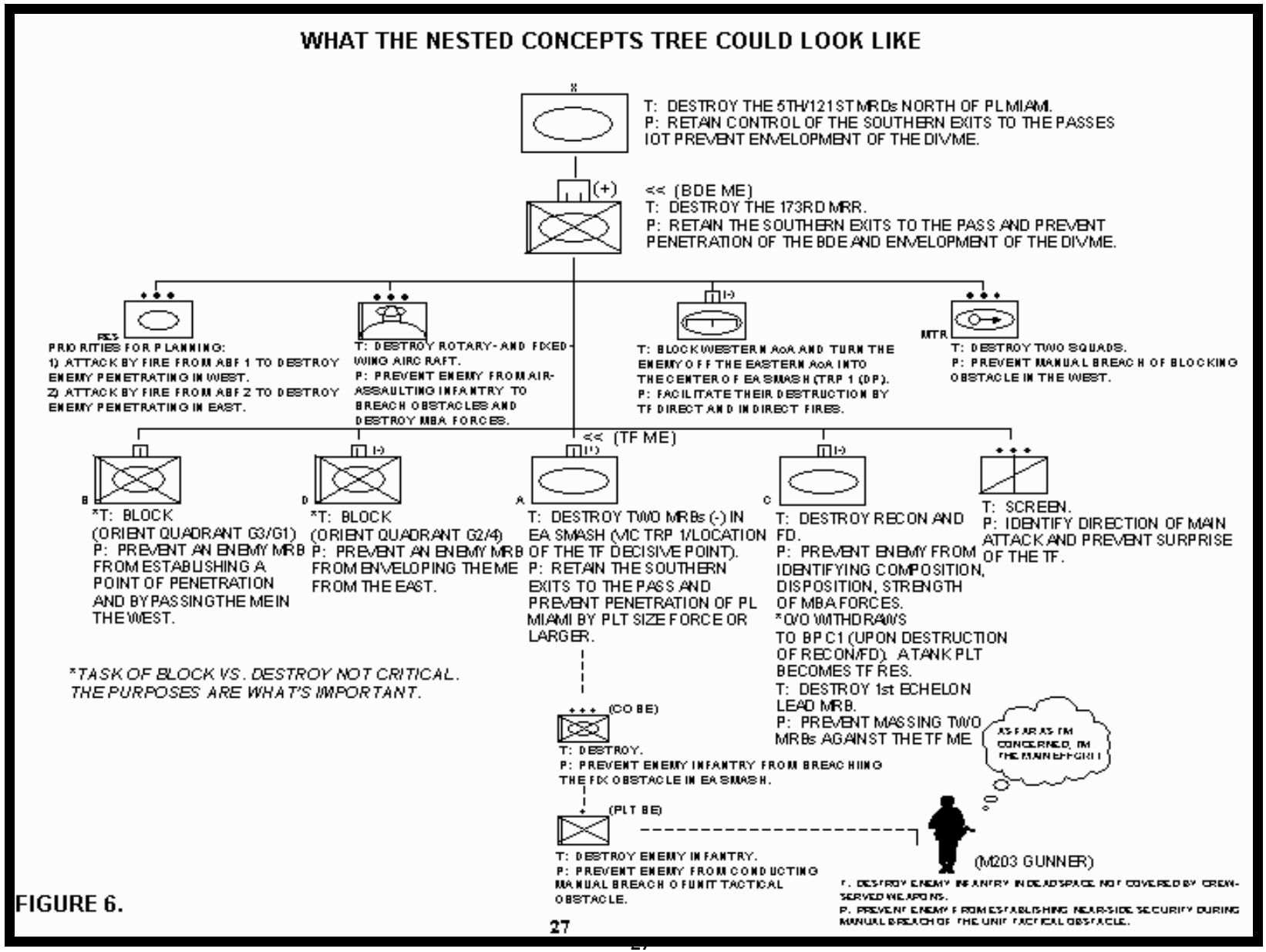

WHAT THE NESTED CONCEPTS TREE COULD LOOK LIKE
T: DESTROY THE 5TH/121ST MRDs NORTH OF PL MIAMI.
P: RETAIN CONTROL OF THE SOUTHERN EXITS TO THE PASSES IOT PREVENT ENVELOPMENT OF THE DIV/ME.
<< (BDE ME)
T: DESTROY THE 173RD MRR.
P: RETAIN THE SOUTHERN EXITS TO THE PASS AND PREVENT PENETRATION OF THE BDE AND ENVELOPMENT OF THE DIV/ME.
RES
PRIORITIES FOR PLANNING:
1) ATTACK BY FIRE FROM ABF 1 TO DESTROY ENEMY PENETRATING IN WEST.
2) ATTACK BY FIRE FROM ABF 2 TO DESTROY ENEMY PENETRATING IN EAST.
T: DESTROY ROTARY- AND FIXED-WING AIRCRAFT.
P: PREVENT ENEMY FROM AIR-ASSAULTING INFANTRY TO BREACH OBSTACLES AND DESTROY MBA FORCES.
T: BLOCK WESTERN AoA AND TURN THE ENEMY OFF THE EASTERN AoA INTO THE CENTER OF EA SMASH (TRP 1 (DP).
P: FACILITATE THEIR DESTRUCTION BY TF DIRECT AND INDIRECT FIRES.
MTR
T: DESTROY TWO SQUADS.
P: PREVENT MANUAL BREACH OF BLOCKING OBSTACLE IN THE WEST.
<< (TF ME)
B
*T: BLOCK
(ORIENT QUADRANT G3/G1)
P: PREVENT AN ENEMY MRB FROM ESTABLISHING A POINT OF PENETRATION AND BYPASSING THE ME IN THE WEST.
D
*T: BLOCK
(ORIENT QUADRANT G2/4)
P: PREVENT AN ENEMY MRB FROM ENVELOPING THE ME FROM THE EAST.
A
T: DESTROY TWO MRBs (-) IN EA SMASH (VIC TRP 1/LOCATION OF THE TF DECISIVE POINT).
P: RETAIN THE SOUTHERN EXITS TO THE PASS AND PREVENT PENETRATION OF PL MIAMI BY PLT SIZE FORCE OR LARGER.
C
T: DESTROY RECON AND FD.
P: PREVENT ENEMY FROM IDENTIFYING COMPOSITION, DISPOSITION, STRENGTH OF MBA FORCES.
*O/O WITHDRAWS TO BP C1 (UPON DESTRUCTION OF RECON/FD). A TANK PLT BECOMES TF RES.
T: DESTROY 1st ECHELON LEAD MRB.
P: PREVENT MASSING TWO MRBs AGAINST THE TF ME.
T: SCREEN.
P: IDENTIFY DIRECTION OF MAIN ATTACK AND PREVENT SURPRISE OF THE TF.
*TASK OF BLOCK VS. DESTROY NOT CRITICAL. THE PURPOSES ARE WHAT'S IMPORTANT.
(CO BE)
T: DESTROY.
P: PREVENT ENEMY INFANTRY FROM BREACHING THE FIX OBSTACLE IN EA SMASH.
(PLT BE)
T: DESTROY ENEMY INFANTRY.
P: PREVENT ENEMY FROM CONDUCTING MANUAL BREACH OF UNIT TACTICAL OBSTACLE.
AS FAR AS I'M CONCERNED, I'M THE MAIN EFFORT!
(M203 GUNNER)
T: DESTROY ENEMY INFANTRY IN DEADSPACE NOT COVERED BY CREW-SERVED WEAPONS.
P: PREVENT ENEMY FROM ESTABLISHING NEAR-SIDE SECURITY DURING MANUAL BREACH OF THE UNIT TACTICAL OBSTACLE.

FIGURE 6.

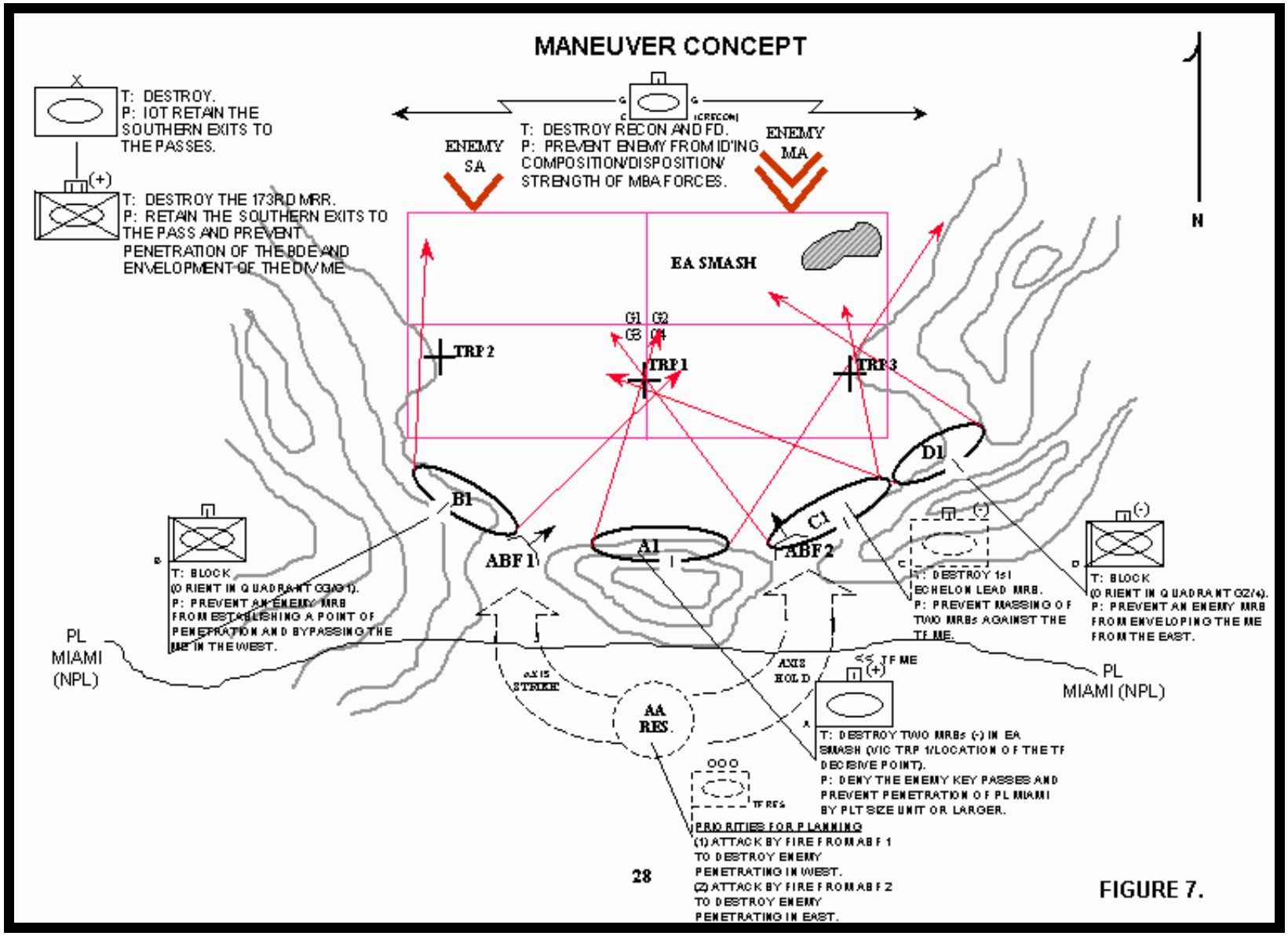
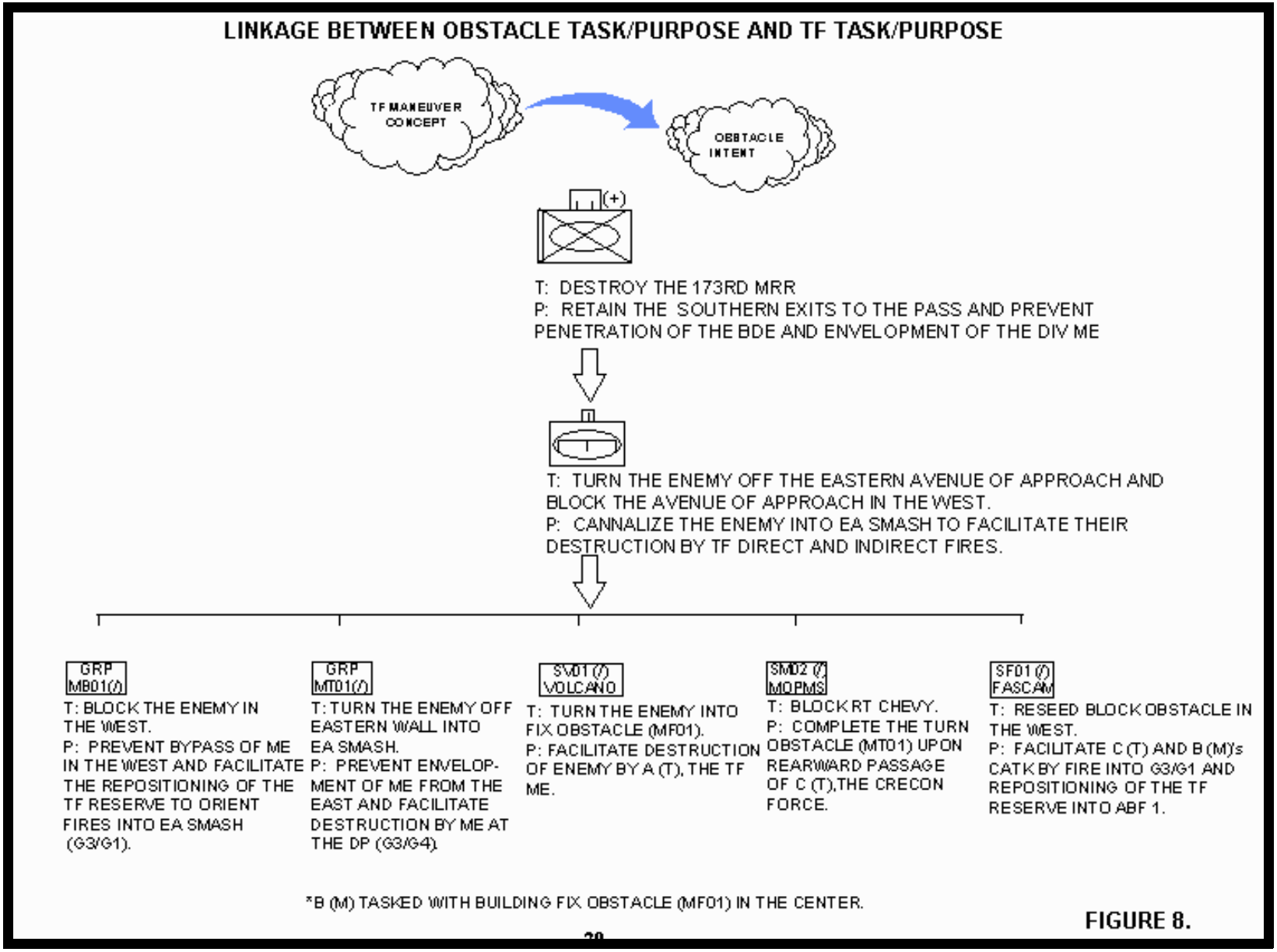

MANEUVER CONCEPT
T: DESTROY.
P: IOT RETAIN THE SOUTHERN EXITS TO THE PASSES.
T: DESTROY THE 173RD MRR.
P: RETAIN THE SOUTHERN EXITS TO THE PASS AND PREVENT PENETRATION OF THE BDE AND ENVELOPMENT OF THE DIV ME
T: DESTROY RECON AND FD.
P: PREVENT ENEMY FROM ID'ING COMPOSITION/DISPOSITION/ STRENGTH OF MBA FORCES.
ENEMY SA
ENEMY MA
N
EA SMASH
TRP 2
TRP 1
TRP 3
B1
A1
C1
D1
ABF 1
ABF 2
T: BLOCK (ORIENT IN QUADRANT CG/G1). P: PREVENT AN ENEMY MRB FROM ESTABLISHING A POINT OF PENETRATION AND BYPASSING THE ME IN THE WEST.
T: DESTROY 1st ECHELON LEAD MRB. P: PREVENT MASSING OF TWO MRBs AGAINST THE TF ME.
T: BLOCK (ORIENT IN QUADRANT GZ/4). P: PREVENT AN ENEMY MRB FROM ENVELOPING THE ME FROM THE EAST.
PL MIAMI (NPL)
PL MIAMI (NPL)
AXIS STREET
AXIS HOLD
AA RES.
TF ME
T: DESTROY TWO MRBs (-) IN EA SMASH (VIC TRP 1/LOCATION OF THE TF DECISIVE POINT). P: DENY THE ENEMY KEY PASSES AND PREVENT PENETRATION OF PL MIAMI BY PLT SIZE UNIT OR LARGER.
TF RES
PRIORITIES FOR PLANNING
(1) ATTACK BY FIRE FROM ABF 1 TO DESTROY ENEMY PENETRATING IN WEST.
(2) ATTACK BY FIRE FROM ABF 2 TO DESTROY ENEMY PENETRATING IN EAST.
28

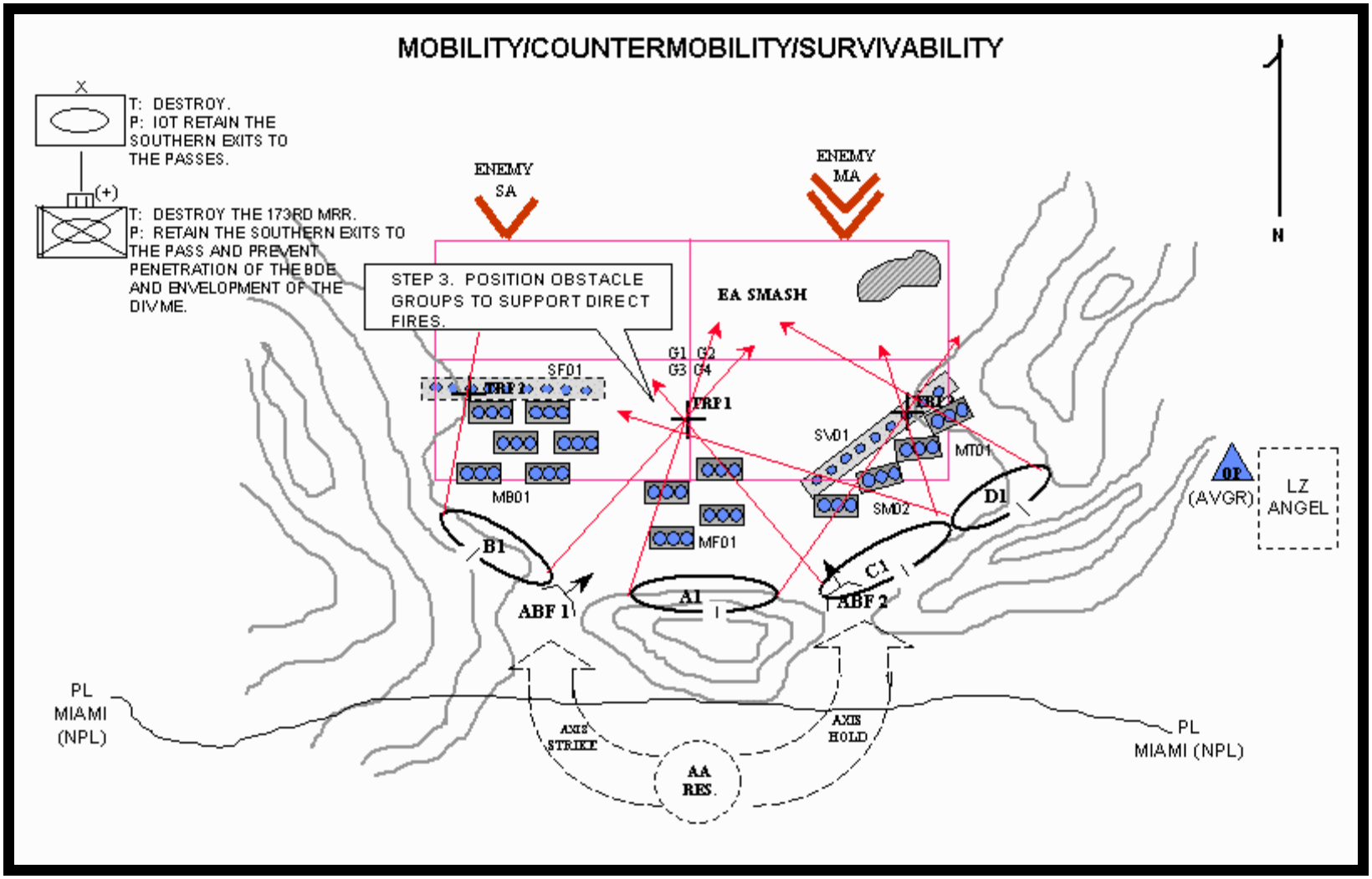
FIGURE 7.

LINKAGE BETWEEN OBSTACLE TASK/PURPOSE AND TF TASK/PURPOSE



*B (M) TASKED WITH BUILDING FIX OBSTACLE (MF01) IN THE CENTER.

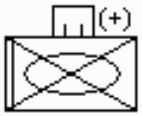
FIGURE 8.


MOBILITY/COUNTERMOBILITY/SURVIVABILITY
T: DESTROY.
P: IOT RETAIN THE SOUTHERN EXITS TO THE PASSES.
T: DESTROY THE 173RD MRR.
P: RETAIN THE SOUTHERN EXITS TO THE PASS AND PREVENT PENETRATION OF THE BDE AND ENVELOPMENT OF THE DIVME.
ENEMY SA
ENEMY MA
N
STEP 3. POSITION OBSTACLE GROUPS TO SUPPORT DIRECT FIRES.
EA SMASH
G1 G2
G3 G4
SF01
TRP 1
FRP1
TRP 2
SV01
MT01
MB01
SM02
D1
MF01
B1
C1
A1
ABF 1
ABF 2
OP
(AVGR)
LZ ANGEL
PL MIAMI (NPL)
AXIS STRIKE
AXIS HOLD
AA RES.
PL MIAMI (NPL)

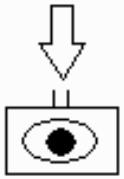
Fire Support. Fire support plans that are not integrated with the maneuver concept, direct fire plan, and countermobility concept, result in unsuccessful fires in support of the operation **(Step 4*, Building the TF Defense).*** The intent of this article is not to address the targeting process at TF level. It is worth noting that the targeting process, in whatever forum/time during the military decision making process (MDMP), is a way to ensure that maneuver and fires are integrated in the concept of the operation. It is critical that the fire support plan is integrated with the R&S plan (detect phase of the targeting process). The TF fire support officer (FSO) begins fire support planning (read parallel planning with the BCT) at receipt of the mission. During the mission analysis briefing, the FSO *recommends* **essential fire support tasks** (EFST) and purposes as part of the EFST for fire support. The commander accepts, modifies, rejects, or creates new EFSTs in his guidance for COA development. The next step is to identify the **method** for accomplishing the EFST (allocate observers/assets, develop plan to attack, and integrate triggers with maneuver planning), then the commander and staff must quantify the **endstate** of the fire support task. Often the endstate will be an assumption (watch out for an overly optimistic endstate) used when wargaming the COA. The endstate must be specific. For example: the TF mortar platoon destroys two enemy squads attempting to conduct a manual breach at the block obstacle in the west. The TF now has a basic concept of fires. A detailed scheme of fires will be developed during COA analysis (wargaming). The diagrams on pages 32 and 33 illustrate what a link between the concept of fires and the TF task and purpose could look like. When properly integrated with the concept for R&S, maneuver, and countermobility, the concept of fires contribute to the TF achieving its task and purpose (see Fire Support Planning for the Brigade and Below White Paper from the Field Artillery School).

Air defense. Air defense (passive and active) is a TF responsibility and must be integrated in the TF scheme of maneuver. Air defense considerations include dedicated air defense artillery (ADA) assets such as the Linebacker, Bradley Stinger Fighting Vehicle (BSFV), Avenger, stingers, and Light/Special Division Interim Sensor (LSDIS)/Ground Base Sensor (GBS)/Sentinel systems. Non-dedicated systems (combined arms for air defense/CAFADs) include systems such as the 25mm chain gun, M2 MG, and the 120mm main gun. Particular consideration must be made to weapons capabilities and how they can best support the TF. For example, if Avengers and stinger teams are within the task organization of the TF, consider employing stinger teams forward in the security zone for the counter-reconnaissance fight and employing Avengers with their night-capable forward-looking infrared radar (FLIR) to destroy enemy air assault forces to the flanks/rear of the main battle area (MBA). Linebackers and BSFVs are ideally suited to the MBA fight because of armor protection and unique weapon systems capabilities. The stinger team can dismount from the BSFV and position on high ground to the rear of their BSFV allowing the crew to engage with stinger, 25mm and TOW simultaneously from separate locations. Bottom line is the air defense concept should articulate the task and purpose for each air defense weapons system and how it contributes to the success of the TF. The diagram on page 34 illustrates what the link between air defense and the TF task and purpose could look like.

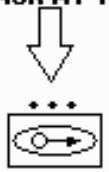
LINKAGE BETWEEN EFSTs/PURPOSE/METHOD/ENDSTATE AND TF TASK/PURPOSE (FOUND IN CONCEPT OF FIRES)



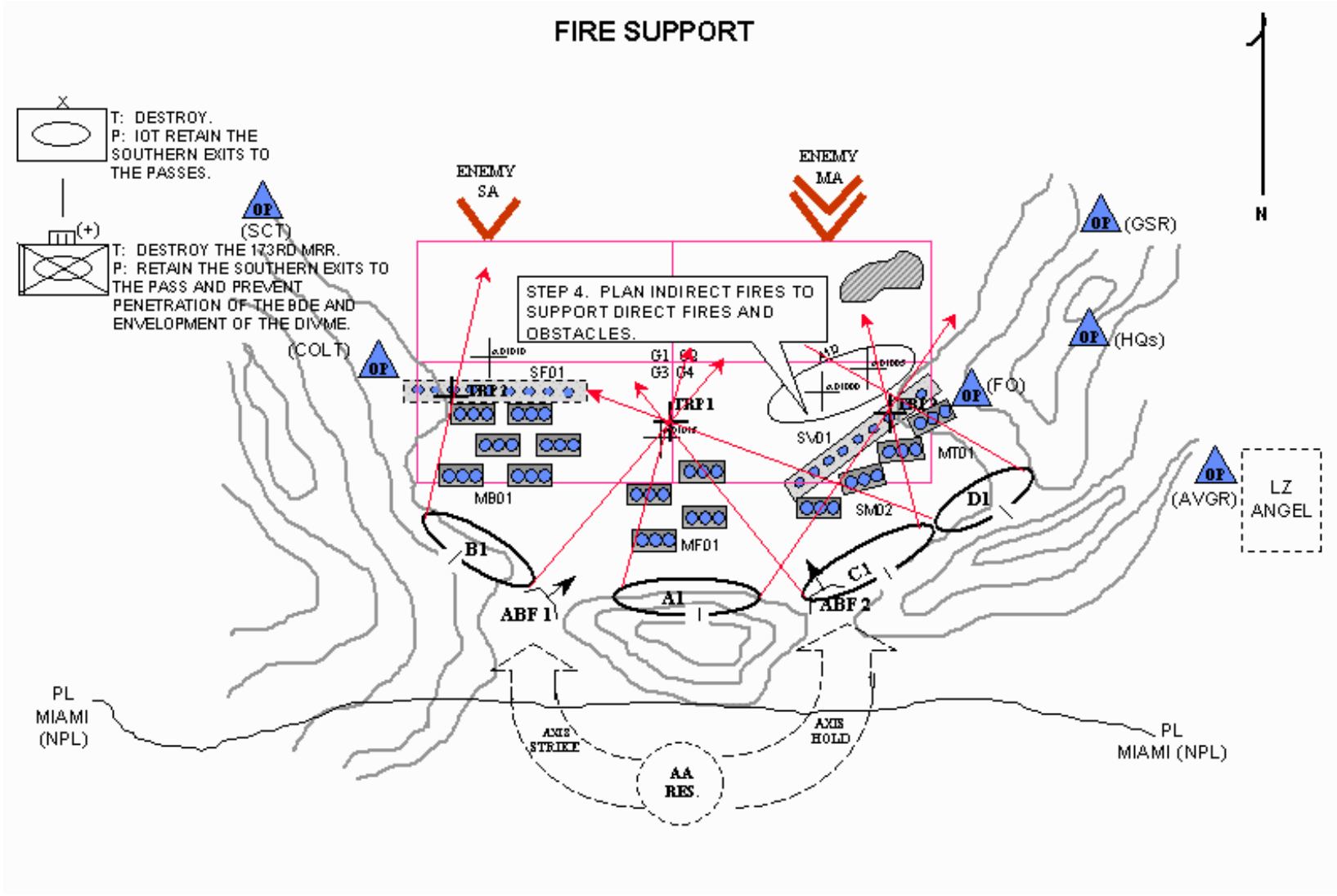
T: DESTROY THE 173RD MRR.
P: RETAIN THE SOUTHERN EXITS TO THE PASS AND PREVENT PENETRATION OF THE BDE AND ENVELOPMENT OF THE DIV ME.



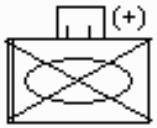
ESSENTIAL FIRE SUPPORT TASK: DESTROY ENEMY BREACH FORCES AT THE TURN OBSTACLE IN THE EAST.
PURPOSE: ALLOW C (T) AND D (M) TO DESTROY ENEMY FORCES WITH DIRECT FIRES.
METHOD: FIRE GROUP A1D, BATTALION 6 RNDS DPICM.
ENDSTATE: ENEMY BREACH FORCE DESTROYED, NO FRIENDLY DIRECT FIRE LOSSES FROM THE ENEMY BREACH FORCE, INTEGRITY OF THE TURN OBSTACLE INTACT.
NOTE: DEVELOPED INTO AN ESSENTIAL FA TASK AT THE DS BATTALION TOC.



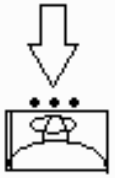
ESSENTIAL FIRE SUPPORT TASK: DESTROY TWO SQUADS AT THE BLOCK OBSTACLE IN THE WEST.
PURPOSE: PREVENT MANUAL BREACH AND ALLOW B (M) AND A (T) TO DESTROY THE ENEMY FORCES WITH DIRECT FIRE AND PREVENT THE BYPASS OF THE MAIN EFFORT IN THE WEST.
METHOD: FIRE A PLATOON ONE ROUND AT TARGET AD1010, EVERY 30 SECONDS, FOR 20 MINUTES.
ENDSTATE: ENEMY BREACH ELEMENT DESTROYED, NO FRIENDLY DIRECT FIRE LOSSES FROM THE ENEMY BREACH FORCE, INTEGRITY OF THE BLOCK OBSTACLE INTACT.


FIRE SUPPORT
T: DESTROY.
P: IOT RETAIN THE SOUTHERN EXITS TO THE PASSES.
(+)
T: DESTROY THE 173RD MRR.
P: RETAIN THE SOUTHERN EXITS TO THE PASS AND PREVENT PENETRATION OF THE BDE AND ENVELOPMENT OF THE DIVME.
OP (SCT)
OP (COLT)
ENEMY SA
ENEMY MA
N
OP (GSR)
OP (HQs)
OP (FO)
OP (AVGR)
LZ ANGEL
STEP 4. PLAN INDIRECT FIRES TO SUPPORT DIRECT FIRES AND OBSTACLES.
SF01
TRP 2
TRP1
G1
G3
G4
MB01
MF01
S\01
MT01
SM02
B1
A1
C1
D1
ABF 1
ABF 2
PL MIAMI (NPL)
PL MIAMI (NPL)
AXIS STRIKE
AXIS HOLD
AA RES.

LINKAGE BETWEEN AIR DEFENSE TASK/PURPOSE AND TF TASK/PURPOSE



T: DESTROY THE 173RD MRR.
P: RETAIN THE SOUTHERN EXITS TO THE PASS AND PREVENT PENETRATION OF THE BDE AND ENVELOPMENT OF THE DIV ME.



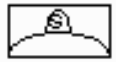
T: DESTROY ENEMY FIXED-/ROTARY-WING THREAT (PROTECT THE ME).
P: PREVENT RED AIR FROM SUPPORTING A POINT OF PENETRATION AND ATTRITTING TF MBA FORCES AND PREVENT ENEMY AIR ASSAULTS TO THE TF FLANKS/REAR.

AVNGR

T: DEFEAT ENEMY AIR ASSAULT IN TF SECTOR.
P: PREVENT ENEMY SEIZURE OF KEY TERRAIN PRIOR TO THE MAIN ATTACK AND MANUAL BREACH OF TACTICAL OBSTACLES BY ENEMY LIGHT INFANTRY (LZ DENIAL).

BSFV (LB?)

T: DESTROY ENEMY FIXED- AND ROTARY-WING THREAT SUPPORTING THE MRR MAIN ATTACK.
P: PREVENT ENEMY AIR FROM ATTRITING MBA FORCES AND MASSING OF COMBAT POWER AGAINST THE ME.



STGR

T: CONDUCT A STINGER AMBUSH FORWARD IN THE SECURITY ZONE TO DESTROY ENEMY RECONNAISSANCE AIRCRAFT.
P: PREVENT ENEMY FROM IDENTIFYING COMPOSITION, DISPOSITION, STRENGTH OF MBA/RESERVE FORCES.

Combat Service Support. The concept of support is the "glue" that holds together the scheme of maneuver. Without prioritization of limited assets for rearming, refueling, and fixing, the TF will not be able to accomplish its task and purpose. The concept of support is the mechanism for ensuring that maneuver and combat support units are resourced and supported in accordance with their assigned task and purpose. For example, if the ME (+) is assigned the task of destroying two MRBs, does the unit have the appropriate CL V on hand to accomplish its task and purpose? In the defense, CSS assets (i.e., medical, maintenance, fuelers) may be positioned forward to support the security zone fight (initial ME?), then positioned back to support the MBA fight. Main battle area forces may be resourced with greater amounts of ammunition to allow pre-stocking. The engineers may receive priority of maintenance support during preparation of the defense.

Command and control. Nested concepts may brief well during confirmation briefs (immediately following the TF operations order (OPORD) and backbriefs (scheduled as required), but how do the TF commander and S3 ensure that all TF supporting efforts are linked to the main effort achieving its task and purpose? A way is nested rehearsals **(Step 6, *Building the TF Defense).*** Nested rehearsals ensure that rehearsals are prioritized and resourced at all echelons. The process is directive in nature with the subordinate rehearsal time dictated in the TF OPORD (some flexibility is required based on company status). Higher rehearsals are conducted last. The requirement is that platoon battledrills are rehearsed before issuance of the company OPORD. Company combined arms rehearsals are completed before the TF EA rehearsal, and the TF combined arms EA rehearsal is completed before the BCT rehearsal. Nested rehearsals require the TF to meet its timeline set in the OPORD (bde time management critical). Battlefield circulation by the TF commander, S3, XO, and CSM is critical to the success of nested rehearsals. The TF commander attends the ME rehearsal and the S3/XO/CSM attend the supporting efforts' rehearsals (focus on maneuver units). This process is passive. Attendees of subordinate rehearsals are **not** participants. The TF commander/S3/XO/CSM **listen** to ensure that the company scheme of maneuver fits within the TF and BCT framework and contributes to the success of the main effort. This process allows the TF CDR/S3/XO to identify areas which were not synchronized well during wargaming, to crosstalk with the TOC for direct coordination of issues, and provides the battlestaff a window of opportunity to correct shortcomings/issues, prior to the TF combined arms rehearsal. Nested rehearsals help ensure that tasks and purposes are linked from platoon (two levels down/target of TF commanders intent) through task force level. They also allow the commander to see if subordinate units understand the TF fire plan (direct and indirect) to include triggers, engagement criteria and engagement priorities (see Engagement Area Rehearsals in FM 71-1). The chart (Figure 13, page 36) illustrates what a graphic portrayal of the TF concept could look like.

CONCLUSION

Nested concepts is more than the linkage between supporting maneuver units and the TF main effort. It includes a linkage between the ME and SEs **and BOS integration** within the TF. It begins with the receipt of the mission and is further developed and refined during COA development. A fully developed COA should result in the following products (not all-inclusive): concept for R&S, maneuver concept, concept of fires, mobility/countermobility concept and concept of support. There should be a direct link between the task and purpose of subordinate units and fires and the task force main effort's task and purpose. If the direct link is not established, the TF has failed to achieve unity of effort. Company commanders and specialty platoon leaders should ask themselves this question: What is my unique contribution to the TF fight and the main effort's success? If you cannot determine your role, you are the wasted effort!✪

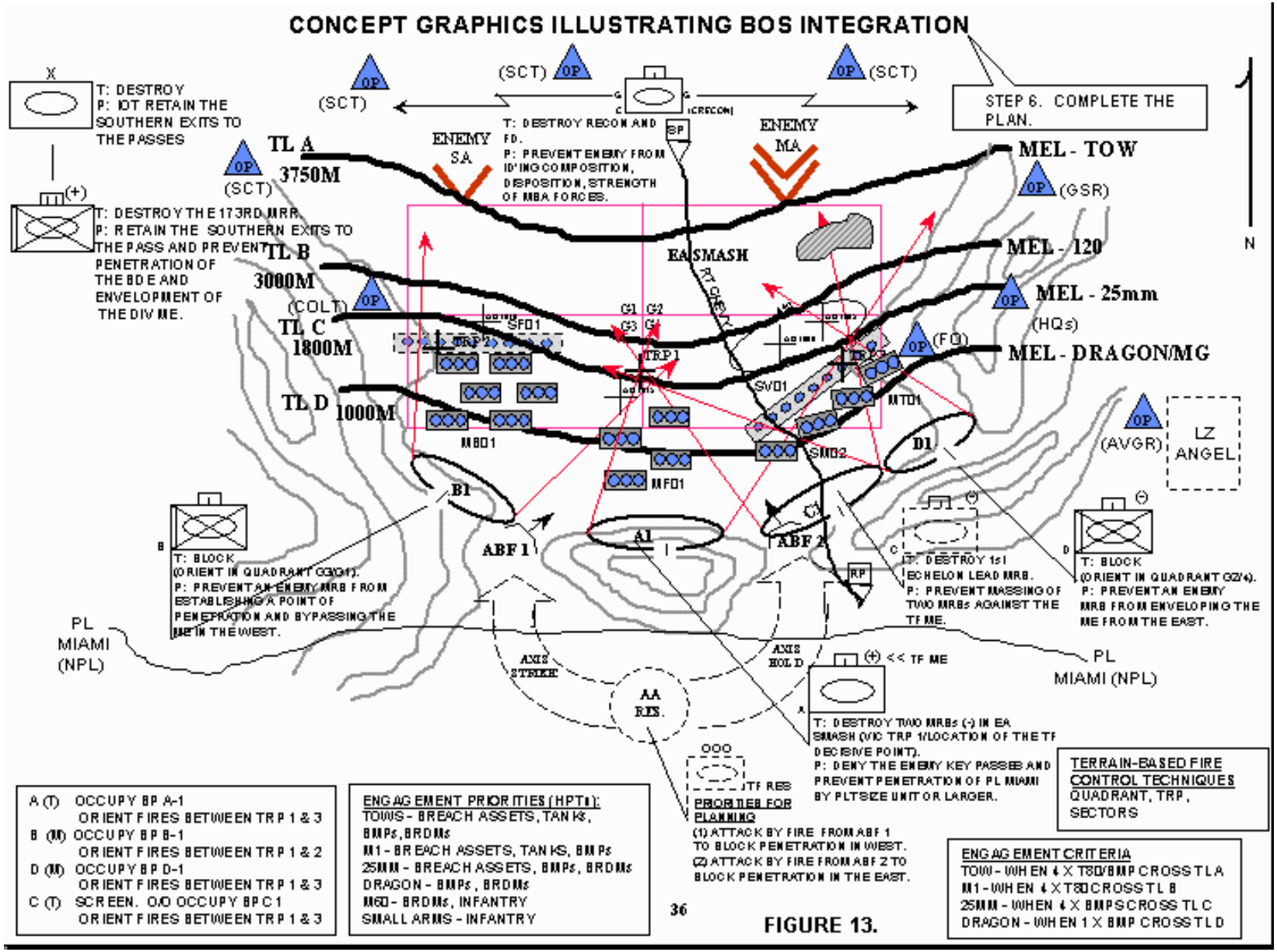
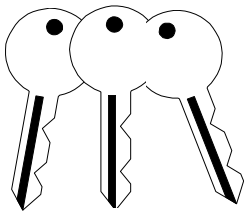

CONCEPT GRAPHICS ILLUSTRATING BOS INTEGRATION
STEP 6. COMPLETE THE PLAN.
T: DESTROY
P: IOT RETAIN THE SOUTHERN EXITS TO THE PASSES
T: DESTROY THE 173RD MRR.
P: RETAIN THE SOUTHERN EXITS TO THE PASS AND PREVENT PENETRATION OF THE BDE AND ENVELOPMENT OF THE DIV ME.
T: DESTROY RECON AND FD.
P: PREVENT ENEMY FROM ID'ING COMPOSITION, DISPOSITION, STRENGTH OF MBA FORCES.
ENEMY SA
ENEMY MA
TL A 3750M
TL B 3000M
TL C 1800M
TL D 1000M
(SCT)
(COLT)
(GSR)
(HQs)
(FO)
(AVGR)
MEL - TOW
MEL - 120
MEL - 25mm
MEL - DRAGON/MG
EA SMASH
LZ ANGEL
TRP 1
TRP 2
TRP 3
SFO1
SVO1
MTO1
MBO1
MFO1
SMO2
B1
A1
D1
ABF 1
ABF 2
AA RES.
AXIS STRIKE
AXIS HOLD
PL MIAMI (NPL)
T: BLOCK (ORIENT IN QUADRANT G3/4). P: PREVENT AN ENEMY MRB FROM ESTABLISHING A POINT OF PENETRATION AND BYPASSING THE ME IN THE WEST.
T: DESTROY 1st ECHELON LEAD MRB. P: PREVENT MASSING OF TWO MRBs AGAINST THE TF ME.
T: BLOCK (ORIENT IN QUADRANT G2/4). P: PREVENT AN ENEMY MRB FROM ENVELOPING THE ME FROM THE EAST.
<< TF ME
T: DESTROY TWO MRBs (-) IN EA SMASH (VIC TRP 1/LOCATION OF THE TF DECISIVE POINT). P: DENY THE ENEMY KEY PASSES AND PREVENT PENETRATION OF PL MIAMI BY PLTSIZE UNIT OR LARGER.
TF RES
PRIORITIES FOR PLANNING
(1) ATTACK BY FIRE FROM ABF 1 TO BLOCK PENETRATION IN WEST.
(2) ATTACK BY FIRE FROM ABF 2 TO BLOCK PENETRATION IN THE EAST.
A (T) OCCUPY BP A-1 ORIENT FIRES BETWEEN TRP 1 & 3
B (M) OCCUPY BP B-1 ORIENT FIRES BETWEEN TRP 1 & 2
D (M) OCCUPY BP D-1 ORIENT FIRES BETWEEN TRP 1 & 3
C (T) SCREEN. O/O OCCUPY BP C 1 ORIENT FIRES BETWEEN TRP 1 & 3
ENGAGEMENT PRIORITIES (HPTs):
TOWS - BREACH ASSETS, TANKS, BMPs, BRDMs
M1 - BREACH ASSETS, TANKS, BMPs
25MM - BREACH ASSETS, BMPs, BRDMs
DRAGON - BMPs, BRDMs
M60 - BRDMs, INFANTRY
SMALL ARMS - INFANTRY
TERRAIN-BASED FIRE CONTROL TECHNIQUES
QUADRANT, TRP, SECTORS
ENGAGEMENT CRITERIA
TOW - WHEN 4 X T80/BMP CROSS TL A
M1 - WHEN 4 X T80 CROSS TL B
25MM - WHEN 4 X BMPS CROSS TL C
DRAGON - WHEN 1 X BMP CROSS TL D
36

FIGURE 13.



8 KEYS TO SUPPORT BATTALION SUCCESS at the Combat Maneuver Training Center

by MAJ Howard R. Christie, ADLER 08 Support Operations O/C

Mission success for support battalions at the Combat Maneuver Training Center (CMTC) means getting tanks and Bradleys across LD. To achieve this feat, CSS units must carefully examine how they plan, prepare, and execute Combat Service Support (CSS) operations. The challenges posed by transitioning from non-linear Peace Support Operations (PSOs) back to linear High Intensity Conflict (HIC) operations complicate the CSS planner's task. Here are some key techniques to help planners ensure timely and flexible support to maneuver units at CMTC.

1. Establish reliable, synchronized and well-defined CSS systems to support a Brigade Combat Team (BCT).

- ! Include all classes of supply, maintenance and services to achieve success for the supported units.
- ! Train up and rehearse before deploying to CMTC.

2. Develop a sound Concept of Support (COS) for the supported BCT prior to their arrival at CMTC. The COS provides the framework for all CSS to deployed units.

- ! An effective COS clearly defines how units will receive support.
- ! CSS planners must synchronize the COS to make certain they will provide the full spectrum of support.
- ! Support battalions synchronize the COS with the brigade S-4 before the CSS rehearsal. Clear definition and synchronization allow all CSS planners and executors to understand and apply the plan.

3. Rehearse. Just as combined arms rehearsals contribute to tactical success, a CSS rehearsal improves support operations for the supported BCT.

- ! Through rehearsals, logisticians convert support concepts to timely, appropriate actions.
- ! Rehearsals validate synchronized plans, ensure continuity of supporting plans, and verify the sustainability of the tactical plan within the maneuver commander's intent.
- ! When conducted with the right players, they remove anxiety from the maneuver commanders.

4. Understand the maintenance and Class IX systems from crew level to direct support.

! With this understanding, planners can identify the weak links in their systems and correct the problem(s) as they occur.

! Daily maintenance meetings are where CSS planners do this.

! Useful meetings must have a defined agenda, a scheduled time (based on tactical and logistical operations) and the key CSS planners in the BCT must attend.

RESULT: Delivery of combat power to the BCT.

5. Plan and train to establish and maintain reliable, redundant tactical communications. This includes logistics connectivity.

! A unit that cannot communicate cannot support or win. Each battle presents a new set of logistic requirements.

! Units must communicate the logistic demands of this ever-changing environment, or they will not provide timely and accurate CSS support for the BCT.

! Redundant communication systems and determined soldier action to maintain positive communications spell the difference between logistic life and death.

6. Establish a system of reporting and tracking to manage information systems.

! CSS planners must have an accurate means to gather information, anticipate CSS shortfalls, and manage CSS systems.

! Without a CSS system, units cannot provide accurate tactical logistical requirements to the BCT.

! Exercise, refine, and incorporate the system into existing standing operating procedures (SOPs), but the bottom line for information management remains maximizing combat power for the maneuver commander.

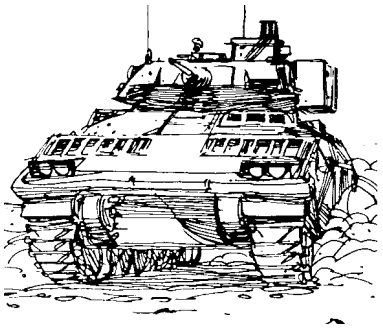
7. Conduct daily BSA tenants' meetings. These provide the support battalions and the brigade staff with excellent opportunities to integrate all tenants into the BSA and synchronize BSA operations: base defense, and administrative issues as well as operational logistics (internal and direct support).

8. Understand how maneuver units fight.

! How the BCT will fight determines all logistic planning including the best method to support.

! This requires broad tactical and technical proficiency.

! A logistician who fails to understand warfighting will not adequately track, anticipate, or provide timely CSS support to the BCT.



CMTC provides many training challenges and opportunities for support battalions to learn. These keys to success are only a handful of the many lessons that a CMTC rotation teaches CSS units. Keying on these techniques allows units to get the most from their CMTC training experience.✪